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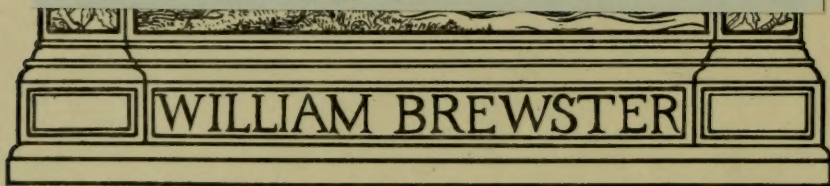
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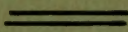
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BULLETIN

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MICHIGAN ORNITHOLOGICAL CLUB



Published Quarterly
In the Interests of Ornithology
in the Great Lake Region.



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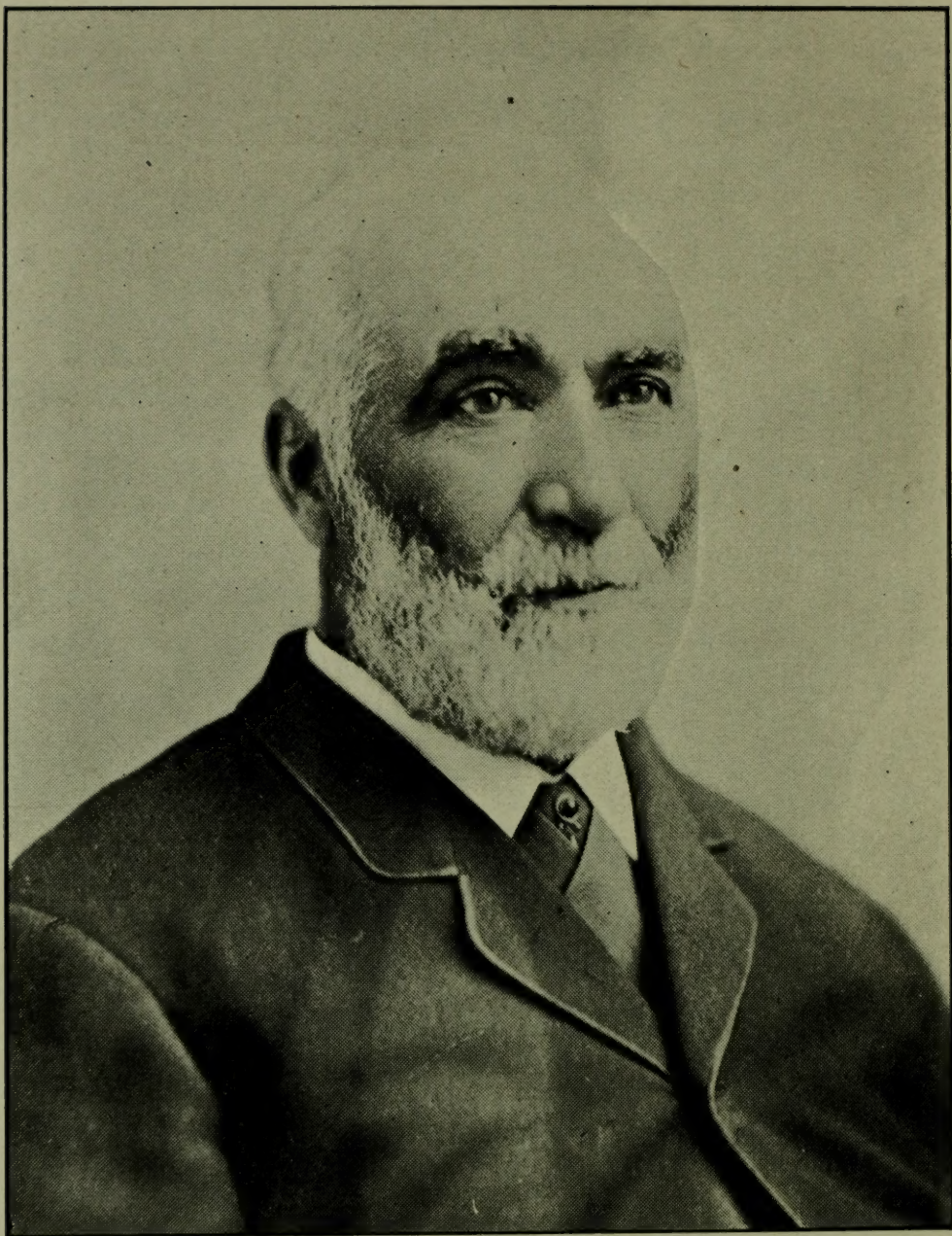
THE BULLETIN

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THOMAS MCILWRAITH

1824-1903

BULLETIN

OF THE

Michigan Ornithological Club

PUBLISHED QUARTERLY IN THE INTERESTS OF ORNITHOLOGY
IN THE GREAT LAKE REGION.

VOL. IV.

MARCH, 1903.

No. 1.

IN MEMORIAM—THOMAS McILWRAITH.

WM. E. SAUNDERS.

The news of the death on Jan. 30, 1903, of Thomas McIlwraith, of Hamilton, Ontario, awakened sad sympathy in many hearts; not the least numerous of these were the bird-lovers in Ontario and elsewhere, who had experienced the happy pleasure of his friendship. Many there are who have never been nearer to his personality than to have been favored with an occasional letter, but they too will feel sad to lose the genial encouragement, and the chatty friendliness of his generously long letters. My own acquaintance with him was chiefly limited to correspondence, although I have spent many happy and instructive hours in his pleasant home; but my opportunity came too late in the day to allow me the pleasure of accompanying him in the field, as he was about sixty years old when I first called on him in 1883 or 1884, and he seemed disinclined to brave the dews of early morn and the other necessary vicissitudes of weather which must be encountered in field work.

That this had not always been the case was abundantly proven. Dr. Kennedy C. McIlwraith, of Toronto, writes me that, "Most of his early collecting was done in the early morning. Up by 4 a. m. and off to the woods, and then back in time for work." His fine collections of mounted birds and skins were a joy to see; the former especially was composed so far as my memory serves me, entirely of selected specimens, and included many beautiful

Brewster
birds which would be very difficult if not impossible to duplicate in Ontario at the present day. Among these were fine, high-plumaged adults of the White Egret and the Snowy Heron, and grand examples of both adult and young of the Raptore; while the smaller birds also were represented by the choicest specimens only. It was to this collection, manifestly, that he gave the loving work of his early ornithological career, at the time when he could turn to no one who was his peer, for counsel or assistance.

The collection of skins came later, when, with the growth of the science of ornithology, and the multiplication of students, came the recognition of various forms of a species, and the opportunity for enriching his collection with southern and western birds by exchange. Much of this part of the collection was the work of his youngest son, Dr. K. C. McIlwraith, of Toronto, who spent much time and energy in its preparation. But it was well regarded in time, however, and Dr. McIlwraith doubtless felt, as did his father before him, invigorated in both mind and body, by the mental rest and bodily recreation of the collector's life. Mr. McIlwraith's home location was very favorable for a bird-lover, as the garden and shrubbery around his house was quite extensive, and being situated right on the bay, it was a natural resting-place for many warblers and other small migrants, and it was there that many rare birds were taken with the little 22 collecting barrel, and there, on the morning of May 16, 1884, was found the remains of a Yellow-Breasted Chat, the first specimen of Ontario.

Thomas McIlwraith was born in Newton, Ayrshire, Scotland, on Christmas Day, 1824, and had, therefore, nearly completed his 78th year. Early in 1846 he went to reside in Edinburgh, where he remained till about the end of 1848. Returning then to his native town he rested there until his marriage to Miss Mary Pack, in October, 1853, when he crossed to Canada and at once took up his residence in Hamilton, where he has ever since resided. He was manager of the gas works until 1871, when he embarked in the coal and forwarding business, which is now in the hands of his son, Thomas F. McIlwraith. Besides his private business he held many prominent local positions, having been on the directorate of banks and insurance companies, president of the Mechanics' Institute, and alderman for the ward in which he resided. The letter quoted from Dr. McIlwraith, says: "He

has often told me that when a boy his interest in Canadian birds was stimulated by seeing some stuffed specimens in Scotland; one was a Belted Kingfisher, and one a Golden Winged Woodpecker. When he came to Hamilton to manage the gas works he began to collect," and his spare time must have been largely spent in this occupation, for it was less than seven years after his arrival there when he read a paper on the birds of the district before the Hamilton Association, which was published in the Canadian Journal, and six years later there appeared in the proceedings of the Essex Institute a more extended list of the "Birds of Hamilton, Canada West," which contained 241 species. The care with which this list was compiled is evidenced by the fact that only two species appear in it with insufficient ground. There are, of course, a few hypothetical species, such as "*Nyctala albifrons*, the White-Faced Owl," as the young of the Saw-whet was then called, but the list as a whole is an admirable object lesson of care and judgment. In this list are noted several items which are of special interest to the student of to-day, for instance: "Wild Turkeys, common along the western frontier, * * * Wild Pigeons, have not been numerous for the last five or six years. A few scattered flocks seen every spring." This note is evidently from the pen of a man who had known the pigeon in times of great abundance, as these flocks would doubtless, from the writer's own recollection (in 1869, three years after the publication of Mr. McIlwraith's list), have contained from 200 to 5000 birds apiece, and the larger number would be judged an enormous number of any kind of birds today. Dr. McIlwraith further says: "He often used to lament the diminution in the numbers of birds that he saw, especially the warblers and waders," doubtless a theme for mournful retrospection with all the older ornithologists whose good fortune it has been to live anywhere near the outskirts of settlement in their earlier days.

After the two lists of the birds of Ontario, noted above, his next published work was a volume of nearly 400 pages, entitled, "The Birds of Ontario," which was mainly the record of his own personal experience, although in the preface he acknowledges assistance from Dr. J. H. Garvier, of Lucknow, Geo. R. White, of Ottawa, and other Canadian students. This was published in 1886 by the Hamilton Association, and was partly the result of a paper entitled, "On Birds and Bird Matters," which he read be-

for the Association in April, 1885. This book enumerates 302 species, and is enriched by many anecdotes of the personal experience of the author, and told in his usual happy voice.

In 1894 appeared his next, and last, ornithological publication, a second edition of his former work, revised and enlarged, covering 426 pages and 316 species. Beyond the books and papers above mentioned, it is a regrettable fact that Mr. McIlwraith wrote but little for the public. A man of his keen intelligence and long experience might have enriched ornithological records with many true pictures of the unusual in bird life, but his disposition did not lead him in that direction. He wrote a few pages for the "Canadian Sportsman and Naturalist" in 1883, in connection with the publication of a "List of the Birds of Western Ontario," by John A. Woden and W. E. Saunders, and never, I think, was a local list published by tyros, reviewed with kindly feeling so manifest, and such desire to inspire and help, as was this one by Thomas McIlwraith. His critique caused the beginning of a correspondence which continued intenually until his powers began to fail a few years before his death, and his letters were to me, as to all his correspondents, most instructive and helpful.

The only article of any length which I find in the "Auk" was published in July, 1883 (first series), describing the winter habits of the Pine Grosbeak, his first meeting with the Evening Grosbeak, and giving a few notes on other winter birds to complete the list of his writings. They told of the finding of the dead body of a Yellow-Breasted Chat in his garden, the assurance of a man near Hamilton that a pair had spent the summer near there, and recorded the actions of a flock of White Pelicans on Jan 13, 1884. He was invited to the meeting of the leading ornithologists of the United States and Canada in 1883, at the Central Park Museum, New York City, and he was there one of the founders of the American Ornithologists' Union, and has ever since continued to be an active member of that organization. He was appointed Superintendent of the district of Ontario for the Migration Committee of the A. O. U., and worked diligently for many years in searching out observers and collecting and forwarding to Washington the results of their work. This brought him into correspondence with many ornithological students throughout the province who might not otherwise become acquainted with him.

It is a great pity that a man with his wide experience and ripe judgment, and whose ability to write instructively and entertainingly on the subject of ornithology, should have written so little as did our late friend. His letters will be cherished by his acquaintances, but it saddens his friends to think of the wider, but unoccupied field in which his store of ornithological observations might have been more freely recorded, and his good influence might have been wielded to the advantage of a wider circle of readers.

(FACSIMILE OF PART OF A LETTER TO MR. SAUNDERS.)

I am able to say no less
and looking forward to meeting
up the birds of the Dominican
as a second edition of the B. G. O
but it will have to be nearly
or totally a different work

So far as beginning has been
been made.

I will be glad to hear
from you any time - with best
wishes believe me yours truly

W. M. Brewster

SOME WORK FOR MICHIGAN ORNITHOLOGISTS TO DO.

Before outlining a plan for work for the members of the Michigan Ornithological Club, I desire to express my satisfaction that the many well-known ornithologists of the Wolverine State have formed an organization which must advance the science of ornithology in the region about the great lakes, and will also benefit each individual member.

I am well satisfied in my own mind that state ornithological clubs are of great benefit to the science at large; further, such organizations keep the members in touch with each other, and when a journal is published, give an opportunity for individuals to contribute ornithological matter, which has been developed under personal observation, and will not only interest fellow-members, but be a record of permanent value.

Moreover the work of an organization in every channel followed is very much greater than the sum total of the work of the individual members.

The first line of work to be attempted by the club as an organization, is to have the present incomplete non-game bird law of Michigan amended, that it may protect all of the beneficial birds, and will also be uniform with the non-game bird laws of a large number of states which have already adopted the American Ornithologists' Union model law; this law has the approval of the United States Department of Agriculture.

The present Michigan law in certain of its sections is admirable; for instance, Section 5804 makes birds the property of the state; Section 5805 prevents shipment of birds out of the state. (See Miller's Compiled Laws, 1897, Vol. 2, Chap. 150, pp. 1812-1816.)

By a very simple amendment to Section 14 of the Public Acts of 1901, No. 217, pp. 335-339, under the head of "Species Protected; Exceptions," the present law of Michigan may be made entirely satisfactory. It is not broad or comprehensive enough at present, as there are many birds in Michigan that are neither "song" nor "insectivorous birds," that are not now protected but are deserving of the fullest protection.

An amendment is now before the legislature, having been introduced by the Hon. George Gallup, substituting the words "or any other wild non-game bird" for "song or insectivorous bird."

This amendment will give protection to the beneficial hawks and owls, therefore it becomes necessary to except from protection those hawks and owls that are harmful, i. e., Cooper's and sharp-shinned hawks and the great horned owl.

Another feature of the amendment is that it will impose a legal bar to the use of the plumage of any protected bird, or any part thereof, for millinery purposes.

The amendment defines by scientific and common names the birds that can properly be considered game.

As the legislature of Michigan will probably be in session for some weeks after the publication of the first number of the **Bulletin** of the Michigan Ornithological Club, it will give an opportunity to the members of the club to use all of their personal and club influence to secure the passage of the proposed amendment. If it is not adopted at the present session the law cannot be changed until 1905, and in the meantime much harm may be done the valuable and interesting birds of Michigan.

If a special committee of the club will take this matter of legislation in hand, and bring it intelligently before the press of the state, and thus secure their influence, it will be of marked advantage.

Citizens in all parts of the state should be asked to write letters to their representatives and senators urging the passage of the amendment, on the ground that it is an economic measure of great value to the agricultural interests of the state.

A second line of work is enforcement of the bird law.

There is absolutely no more important work that can be done by the members of the club than to see that the bird laws are absolutely enforced. The membership of the club comes from all parts of your state; each member should take a personal interest in seeing that the law is strictly enforced in his locality, and to that end he should be thoroughly posted as to its provisions, and to the legal methods for its enforcement.

A third line of work will be to introduce nature study into the public schools of Michigan; this is an important innovation and may be somewhat slow of accomplishment. However, a strong committee should be appointed to take the matter up with the State Superintendent of Public Instruction.

Within the last few years the subject of nature study has been brought so prominently to the front, that undoubtedly it will soon

be a part of the curriculum of the schools throughout the country. The economic importance of birds is becoming so well recognized that the scholars in the country schools, the children who will within a few years become farmers and farmers' wives themselves, should be given a thorough and comprehensive knowledge of the economic value of all birds; such knowledge will prove both pleasant and profitable to them in after life.

A fourth line of work should be that of educating the agriculturists of the state. Unfortunately very few of the present day farmers have more than a very slight understanding of the value of birds as farm helpers. During the childhood of the present generation of farmers, especially those who are past middle life, but little was known of the economic value of birds, and prejudice begat of ignorance was the result. Happily this condition is changing very rapidly; from all parts of the country the farmers are beginning to ask for information about birds, and in many sections of the country, where the matter has been forcibly brought to their attention by serious crop losses, they are demanding more rigid protection for the birds they are now beginning to recognize as their friends.

The National Committee of Audubon Societies have commenced the publication of a series of Educational Leaflets, each one of which will treat of a single species; these will be illustrated by Mr. Fuertes, the well known bird artist, and will give not only an accurate description of the plumage of the bird, but also its distribution in North America. In addition the very latest information regarding the economic status of the bird will be given.

A liberal circulation of these leaflets will be the means of conveying much valuable information to the teachers and scholars of Michigan, as well as the farmers and fruit-growers.

Suggesting these channels of activity to the members of the Michigan Ornithological Club, and wishing them great success in their personal and club work, I am, Very cordially,

A handwritten signature in dark ink, reading "J. M. Dutcher". The signature is written in a cursive style with a large, looping initial "J" and a long, sweeping underline.

Chairman Protective Committee,
American Ornithologists' Union.



COURTESY OF HOUGHTON, MIFFLIN & CO.

NORTHERN RAVEN

(From Handbook of Birds of Western United States)

SOME HINTS FOR BIRD STUDY.

PROF. WALTER B. BARROWS.

Little progress in bird study can be made—in fact, real bird study can hardly be said to begin—until the student has become somewhat familiar with most of our common birds, until he can recognize and name correctly at sight the males at least of sixty or seventy species. Of course, it will take some trouble to get this amount of knowledge, but it must be obtained before better work can be done. You can make no “original observations” of any value, impart no information worth considering, publish no “records” which will command attention, until you really **know** all of our common birds when you see them. Some may be “seen” well enough for recognition half a mile away, others must be watched patiently at a distance of but two or three yards, and a few may have to be killed, measured, and compared with descriptions or specimens before identification is possible.

For this purpose use every means at your disposition—books, pictures, museum specimens, correspondence with friends or with naturalists whom you have never met. Help yourself as far as practicable, for your own good, but do not be afraid or ashamed to ask help from others when you have made an honest effort and are not satisfied; get the facts somehow. Thus knowledge will come with experience, and eventually you will name nine out of ten living birds at sight, and the tenth one after a little patient watching and thinking.

The largest and most valuable part of the unknown facts about Michigan birds relate to the common species. “Rare” birds are always interesting and should not be slighted, but there are thousands of things waiting to be discovered about our commonest birds. Fifteen years ago I began studying the common Crow, and for four years gave almost my whole time to that one species. Much was learned, but much more remained to be learned, and although I have been at it ever since, not a season passes which does not add some new fact to my knowledge of that wonderful bird.

Among the facts which we want to know are **all** the common names by which any bird is known. Of course we all know that the Downy Woodpecker is not a sapsucker, although often so called, but I was amazed recently to find that the Nuthatches are commonly called sapsuckers in some parts of the state. In

some sections the Bobolink is known only as the Skunk-head Blackbird, while the Towhee or Chewink is called Bobolink. More than thirty different names are recorded for the Flicker or Golden-winged Woodpecker, and doubtless half of these might be found in regular use in one part or another of Michigan. Therefore, while learning to name birds properly yourself, try to find out what other people call them, and do a little missionary work as you have opportunity.

As soon as you know common birds well you can begin to be of real use to others by adding to the common store of knowledge. We want to know all sorts of things. Though not among the most important facts, yet it is desirable to know when the various species arrive from the South, how long they stay, whether they nest here or go further North, when they leave for the South again, and a host of related facts. The novice should let dates of "departure" alone; anyone with moderate knowledge, who is in the field every day or two, may make valuable records of arrivals, but it takes some experience to detect absences promptly.

We cannot know too much of nesting habits, but among the points on which our information is very meagre are the period of incubation and the length of time the young stay in the nest or remain under the parents' care. If this work is to be done properly the observer should not only keep a model note-book, but he should be provided with a small mirror wired to the end of a light rod (a jointed fishing-rod is the thing), in such a way that the mirror can be bent at any angle and the observer can look into a nest a dozen feet above his head, or in the tangle of a thicket, without disturbing the nest in any way or jeopardizing comfort or clothing in the effort to get closer. The number of broods reared by some species is still in doubt, and any fact bearing on this point should be noted. Disaster often overtakes the first nest and a second or third attempt may be made, thus delaying the appearance of the young far beyond the usual time, and misleading any but the most careful observers.

Perhaps there is no subject which offers a more fruitful field for the careful student than a study of the mortality of the different species during nesting-time. Let someone keep watch of a limited number of nests of the Robin, Blue Jay, Catbird, Song Sparrow, Phoebe, or other common species, and note the success or failure of each family, as shown by the number of healthy

young which finally "graduate" from each nest. Not only would the figures so obtained be valuable in themselves, but the knowledge of the causes of failure, complete or partial, would give us the means of affording better protection to the unfortunate birds, at least in some cases.

For such students as are favorably situated, the work of census taking, carefully and systematically done, would be most valuable, both for the training afforded and for the positive gains to science. Most of the statements so freely published as to the great changes in bird population in the last few years rest upon the flimsiest of foundations, being for the most part hasty conclusions from very insufficient data, or even mere guesses without any foundation at all.

Finally, and above all, never sacrifice a bird's life or nest, or endanger its freedom or comfort, without a good, honest purpose. If it is necessary to "make a collection" of birds, secure the right to do it by a permit from the proper officer (the State Game and Fish Warden), and do not abuse the privilege. Collections of eggs cannot be made legally in Michigan, as the present law does not authorize the issuing of permits for that purpose, while it does specifically prohibit the destruction of nests or eggs of protected birds for any purpose whatever.

Agricultural College, Mich., March 14, 1903. •



COURTESY OF HOUGHTON, MIFFLIN & CO.

RING BILLED GULL

(From Handbook of the Birds of Western United States)

A LIST OF THE LAND BIRDS OF SOUTHEASTERN MICHIGAN.

BRADSHAW H. SWALES.

Very meager literature on ornithology has been published on the fertile field comprising Southeastern Michigan, and no list of the birds of the region has appeared to my knowledge. This paper is intended solely as a Preliminary List of the birds recorded in the Counties of Wayne, Southern Oakland, Eastern Macomb, Southern St. Clair, which includes the American portion of the St. Clair Flat region.

Geographical lines are difficult to draw in this region, owing to the varied topography of the country. Situated as Detroit is on the broad Detroit River, almost midway between Lakes Erie and St. Clair, a natural highway for migrating birds is afforded.

Since 1889 I have studied as carefully as time and business allowed, the birds of this region, to which data is added all available material of value and reliability. The list is as complete as possible, but doubtless with the increased ornithological work many species will be added by future study and observation. My main object in view of publication is to get the list under way where future study can correct and complete it, and to afford a working basis for local ornithologists.

My thanks are especially due to Mr. J. Claire Wood, of Detroit, for invaluable personal help, extending over the entire period of my observation. Also to Alex. W. Blain, Jr., and Walter C. Wood for many valuable notes.

1. **Colinus Virginianus** (Linn).

BOB WHITE.—A fairly abundant resident. This bird is apparently on the increase.

2. **Bonasa umbellus** (Linn).

RUFFED GROUSE.—Resident, fairly abundant.

3. **Zenaidura macroura** (Linn).

MOURNING DOVE.—An abundant summer resident. Of late years a few individuals remain throughout the winter in favorable localities.

4. **Cathartes aura** (Linn).

TURKEY VULTURE.—Apparently on the increase, as I seldom noted the bird in the early '90s. A few are seen every spring and fall soaring over the woods. Mr. L. J. Eppinger, of Detroit, mounted a bird that was shot in late October, 1902, in almost the heart of the city. As recorded in the

"Bulletin" of the Michigan Ornithological Club, Vol I, W. M. Randall, of Belleville, states that a pair nested in that locality in 1897.

5. **Elanoides forficatus** (Linn).

SWALLOW TAILED KITE.—One record only. The late W. H. Collins shot a specimen in 1881, which is now preserved in the collection of the Detroit Museum of Art. However, this bird has been noted at London, Ontario, north of here, and one was shot in June, 1892, in Monroe County, directly south of Wayne County.

6. **Pirus hudsonius** (Linn).

MARSH HAWK.—Common summer resident. Occasionally seen in winter, especially in the fields adjacent to the river and lake. Breeds both inland and at the Flats.

7. **Accipiter velox** (Wils).

SHARK SHINNED HAWK.—Rather a rare migrant, usually observed only in March and April and the Fall.

8. **Accipiter cooperii** (Bonap.)

COOPER HAWK.—A common bird, next to *Buteo lineatus*, our most abundant breeding hawk. Rarely seen in winter.

9. **Accipiter atricapillus** (Wils).

AM. GOSHAWK.—Very rare. I have never observed the bird here. Mr. James B. Purdy records one shot December 24, 1898, at Plymouth.

10. **Buteo borealis** (Gmel).

RED TAILED HAWK.—Fairly abundant, many are resident birds. Breeds in the larger timber in the more unsettled sections.

11. **Buteo lineatus** (Gmel).

RED SHOULDERED HAWK.—Our most abundant hawk, breeding commonly throughout the section. A few are resident.

12. **Buteo swainsoni** (Bonap.).

SWAINSON'S HAWK.—A rare straggler. Several have been taken in Wayne County. Mr. Davidson records one taken by Mr. John Stocker near Grosse Pointe.

13. **Buteo latissmus** (Wils).

BROAD WINGED HAWK.—Fairly abundant, migrant usually observed in late April and early May. I am positive that the bird breeds here, but to my knowledge no eggs have been taken.

14. **Archibuteo lapopus sancti-johannis** (Gmel).

AM. ROUGH-LEGGED HAWK.—Migrant, seen generally in late fall and winter, less frequently in spring.

15. **Aquila chrysaetos** (Linn).

GOLDEN EAGLE.—A rare straggler. I have never seen it. James B. Purdy records two as being taken near Plymouth—one shot in December, 1901, and one in October, 1898.

16. *Haliaeetus leucocephalus* (Linn).

BALD EAGLE.—Comparatively rare, usually observed in late fall and during the winter. Generally a few individuals are seen on the river or at the Flats in the winter. These feed on the ducks that frequent the open places in the ice. A pair have been for many years on Elba Island, near the mouth of the Detroit River.

17. *Falco columbarius* (Linn).

PIGEON HAWK.—A rare migrant in spring and fall. Of late years I have not seen the bird. Two were shot in October, 1898, by C. H. Allis.

18. *Falco sparverius* (Linn).

AM. SPARROW HAWK.—Abundant Summer resident. A few are usually to be seen every winter.

19. *Pandion haliaetus carolinensis* (Gmel).

AM. OSPREY.—Rather rare migrant. I have only observed it in early spring and late fall.

20. *Strix pratincola* (Bonap.).

AM. BARN OWL.—Very rare. James B. Purdy records but one near Plymouth. As recorded in the Auk, Vol. XIX., one was taken near the lower end of the Detroit River.

21. *Asio wilsonianus* (Less).

AM. LONG EARED OWL.—Not common, but probably more so than supposed owing to its nocturnal habits. J. Clair Wood has taken several sets, but none since 1887.

22. *Asio accipitrinus* (Pall).

SHORT EARED OWL.—Fairly abundant, migrant in spring and fall. Usually observed in territory bordering the river or at the Flats. Does not breed.

23. *Syrnium nebulosum* (Forst).

BARRED OWL.—Not common, resident.

24. *Nyctala acadica* (Gmel).

SAW-WHET OWL.—Rather rare, but owing to its small size and nocturnal habits is not often seen. Hence the bird may be more abundant than is generally supposed. Breeds. Mr. W. A. Davidson, of Detroit, has taken a set of eggs in Oakland County.

25. *Bubo virginianus* (Gmel).

GREAT HORNED OWL.—Resident, far less abundant than formerly, owing to excessive persecution and the destruction of the larger timber.

26. *Megascops asio* (Linn).

SCREECH OWL.—Resident, common. The gray phase predominates here, and I have rarely seen a bird in the red plumage. Lately one was brought in from Macomb County.

27. *Nyctea nyctea* (Linn).

SNOWY OWL.—A transient visitor in late fall and winter. During the winter of 1901-'02 the bird was unusually abundant here, for the species,

and many were sent in to local taxidermists. The past winter, 1902-'03, I was able to hear of but two being taken.

28. **Coccyzus Americanus** (Linn).

YELLOW BILLED CUCKOO.—A common Summer resident. Breeds, sometimes very late. We have taken several sets in early September. Usually this bird is not seen until May 10th, and I have seen it as late as October 26th.

29. **Coccyzus erythrophthalmus** (Wils).

BLACK BILLED CUCKOO.—A fairly common Summer resident. Breeds. According to my experience rarer than the preceding.

30. **Ceryle alcyon** (Linn).

BELTED KINGFISHER.—Summer resident, abundant, breeds. I have two records of the bird wintering here, and Mr. Purdy saw one at Plymouth Dec. 29, 1898.

31. **Dryobates villosus** (Linn).

HAIRY WOODPECKER.—A common resident, but much more abundant in winter. A few pairs breed. Not as common as *D. pubescens*. The earliest recorded set is April 22, 1889, taken by Mr. Purdy, of Plymouth.

32. **Dryobates pubescens** (Linn).

DOWNY WOODPECKER.—Common resident; breeds in late April and early May.

33. **Sphyrapicus varius** (Linn).

YELLOW-BILLED SAPSUCKER.—Spring and Fall migrant. A few pairs remain to breed.

34. **Melanerpes erythrocephalus** (Linn).

RED HEADED WOODPECKER.—Abundant Summer resident. Of late years, since '95, this bird has wintered in considerable numbers at Belle Isle, the island park of Detroit. The past winter of 1902-'03 the bird was entirely absent. Occasionally a single bird winters on the mainland.

35. **Melanerpes carolinus** (Linn).

RED-BELLIED WOODPECKER.—Rather a rare migrant in spring and fall, rarely in winter. Some years pass without a single bird being observed. Usually seen in April and October.

36. **Colaptes auratus** (Linn).

FLICKER.—Summer resident; common. A few are usually seen every winter of late years. My earliest record for migrants is March 4.

37. **Antrostomus vociferus** (Wils).

WHIP-POOR-WILL.—Fairly abundant Summer resident, usually more often heard than seen. Arrives from April 29 to May 7 generally.

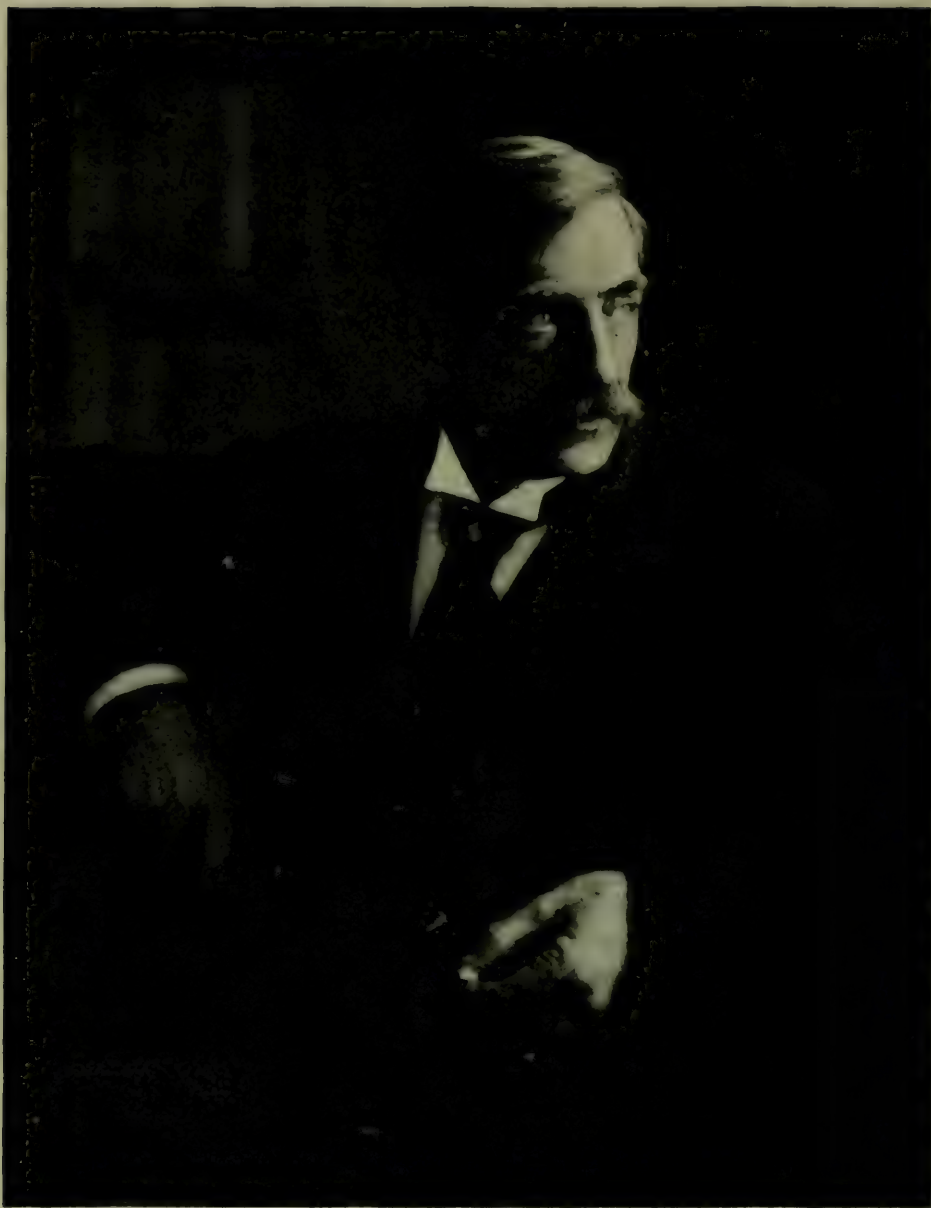
38. **Chordeiles virginianus** (Gmel).

NIGHT HAWK.—A common bird from May 10th to September 1st.

39. **Chaetura pelagica** (Linn).

CHIMNEY SWIFT.—Summer resident; common. My earliest date is April but the bird generally arrives here by May 1st.

(To be continued.)



Very truly yours,
Adolphus B. Covert

SUGGESTIONS FOR A METHOD OF STUDYING THE MIGRATIONS OF BIRDS.*

LEON J. COLE.

Many theories have been advanced to account for the striking migrations of birds, and as has been shown by Wallace,¹ and in a somewhat modified way by Brooks,² the law of natural selection is capable of accounting for the origin of this habit, which has become so permanently fixed in nearly all our birds. But there are many phenomena connected with migration to account for which even satisfactory hypotheses are not as yet forthcoming, chief among which may be cited the question of how birds are able to find their way unerringly over hundreds, or even thousands, of miles of land and water to a particular locality which they have left the previous year. Before these questions can be answered a much better knowledge of the facts is necessary.

Various methods have been employed for obtaining data relative to the migration of birds, and an immense amount is contained in miscellaneous notes scattered throughout the ornithological literature. These notes embody in large part the records of single observers on the flights of birds, their abundance at various times of year, and especially records of their first arrival in the spring. The collection of this last mentioned data, together with some further notes on the time the bird became common, whether it breeds at the station of the observer, etc., has been carried on in an extensive and systematic way in this country for many years by the United States Department of Agriculture, under the able direction of Dr. C. Hart Merriam. A very excellent report of some of the results of the first of this work in the Mississippi Valley was prepared by Prof. W. W. Cooke,³ but so far as I know nothing of the kind has been attempted with the mass of data which must have accumulated since that time. During the period of its activity the Michigan Ornithological Club appointed a committee to collect similar data in the Great Lake region, blanks being used almost identical with those of the Department of Agriculture.

Pre-eminent among individual observers is undoubtedly the late Herr Gätke, of Heliogoland, whose observations cover a period of some fifty years, while in this country Mr. Leverett M. Loomis has accumulated a mass of notes on the movements of the water birds off the California coast, and Mr. Otto Widmann has for years kept accurate records of migration in the Mississippi valley, which are largely quoted by Cooke in the work mentioned. Some information has also been gathered relative

¹Nature, X., p. 459.

²The Foundations of Zoology, chapter V. New York, 1899.

³Report on Bird Migration in the Mississippi Valley in the Years 1884 and 1885, by W. W. Cooke. Edited and revised by Dr. C. Hart Merriam. U. S. Dept. Agr., Division of Economic Ornithology, Bulletin No. 2. Washington, 1888.

*Reprinted from the Third Annual Report of the Michigan Academy of Science, for 1901, pp. 67-70. Lansing, 1902.

to the movements of birds at night by observations at light houses,¹ and by the use of telescopes turned upon the moon, a record being kept of the birds that crossed the illuminated field. A more or less systematic attempt has been made at the former, and I believe Mr. Winknewerder at the University of Wisconsin is at present carrying on investigations in the latter line. Some data are gathered also from the birds that meet with accidents while migrating, such as flying against towers, buildings, wires, etc.

While at Woods Holl in the summer of 1900 I had the pleasure of hearing Dr. Robert H. Wolcott give the results of some of his studies on migration in Nebraska, in which he seemed to show beyond doubt that at least some of the birds, in coming into Nebraska in the spring, follow natural routes such as the water-ways; for example, certain species were found to arrive successively at intervals along the Missouri, the Platte and finally at localities on streams tributary to the Platte. It was with an idea of finding whether similar routes could be mapped in Michigan that I lately undertook to work over the records accumulated by the migration committee of the Michigan Ornithological Club. I found, however that the records for any one species were far too few and scattered to give any satisfactory results. Although the sheets in use give much valuable information, there are several reasons why, it seems to me, what might be called an *intensive* method might be employed to advantage in place of this more *extensive* one. The ideal would be, of course, a method which would give us complete records of the movements of every species of bird at each station where there is an observer, not only for the period of migration, but throughout the year; but for obvious reasons these cannot be obtained. In the first place, to obtain such records would require practically the whole time of the observer, while for these notes we have to depend almost entirely upon persons whose time is mostly taken up in other ways, and who study birds only as a pleasure and pastime during leisure hours. And again, many of these observers, though familiar with the commoner species of birds, and whose notes on these species are perfectly reliable, are not familiar with the bulk of the birds; and in their migration blanks the list of species is often small, or otherwise, apt to be inaccurate.

Some common bird should be selected, one which is familiar to all amateurs, and blanks sent out with full instructions for recording the data with regard to this species for all times of the year. The species selected should also be one that makes its presence known when it is in a locality, without requiring too much search to find it. It should also be one in which the female is easily distinguishable from the male, and if possible, in which the young differ from both. With proper instructions accompanying these blanks, records could be gathered from which the movements of the species could be mapped with considerable assurance, and incidentally the distribution and relative abundance at the different stations throughout the year could be ascertained. Light would also be thrown upon many vexing questions which are awaiting settlement. For instance, do the birds remain in the neighborhood after breeding, or do they move northward as

¹In this connection, Bird Migration, by William Brewster. Memoirs of the Nuttall Ornithological Club, No. 1. Cambridge, Mass., 1886.

Notes on bird migration are scattered throughout all the ornithological publications: no complete bibliography has ever been made, and would be both very extensive and difficult to compile.

is supposed to be the case with some species? Do the old birds or the young lead in the fall migrations? This is a question upon which there is considerable difference of opinion among writers at present, and is a vital point in the recently advanced theory of Capt. G. Reynaud¹ on the orientation of animals, in which he advances the theory of a "sixth sense," which he calls the "law of retracement" or "law of reverse scent." He says,² "When the time for departure is come, birds of the same species, inhabiting the same region, come together for the journey. Those that have already made the voyage take the lead and retrace the path by which they came. The younger birds, born since the last journey, confine themselves to following their elders, and when, some months later, it becomes time to return, these are able in their turn to follow in a reverse direction the journey previously made." Here is a question of fact that must be settled by observation before we can seriously consider the theory. Again, Is it the young birds that are most apt to stray from the regular paths of migration? Does the species in migrating advance as a whole, or is it "like a game of leap-frog," the birds in the rear continually passing those ahead, as a flock of passenger pigeons is said to advance across a field when feeding? How definitely do birds return to the same locality every summer? Do their routes of migration vary from year to year? These and many other questions could, I believe, be settled by a line of study such as I have indicated, and would open the way to a consideration of the little-understood "homing instinct" of animals, which probably reaches its highest development in birds, enabling them to reach a definite destination over hundreds of miles of land and sea, often without any landmark for guidance, even supposing that they make use of such helps. This faculty appears especially remarkable to one who has seen the murrees and other water birds of Bering Sea returning through the ever-present fog to their nests on one of the few islands which afford them a home. As the boat approaches land, which is hidden from sight and its presence and direction known to the navigator only by the help of his charts, long, broken lines or smaller flocks of these birds are seen flying rapidly by. There is no hesitation, no uncertainty; they may swerve aside from curiosity to pass near and inspect the ship, but the flight is then continued in the former direction. What can guide these creatures where the vision is limited to a small expanse of gray water enveloped in cloud? Certainly it cannot be the direction of the wind, as maintained by some, for the wind does not always blow in the same direction, and may even not blow at all.

It is not an easy matter to select a species of bird that will meet all the conditions given above as desirable for the one to be studied, but there are several that fulfill a part of them at least. As far as the matter of plumage goes the red-winged blackbird seems to offer as good a subject for easy identification as any, and would also be favorable in other ways; but it is possible that further thought may suggest a better.

To answer some of the questions propounded above an even more exact method will probably be needed, and it is possible that for this some such plan as that pursued by the United States Fish Commission might be utilized. In order to get information of the movements of fish

¹*Revue des Deux Mondes*, CXLVI, 380-402. Translation in Annual Report Smiths. Inst. for 1898, pp. 481-498.

²Smiths. Rept. for 1898, p. 490.

they fasten numbered tags upon individuals that have been caught and let them go again, keeping accurate record of the numbers and all the data of release. Instructions are dispersed among the fishermen of the region asking them to return all labels they may find on the fish they take, together with the data of capture, such as locality, condition of the fish, etc. As I say, it is possible such a plan might be used in following the movements of individual birds, if some way could be devised of numbering them which would not interfere with the bird in any way, and would still be conspicuous enough to attract the attention of any person who might chance to shoot or capture it.

A trial of the methods I have attempted to outline would necessarily entail considerable labor and require much time of the person directing it, and could probably be carried on best by a committee of some scientific society or other organization. A number of years at least would be required to settle with definiteness many of the questions, and some of them might require many years of continued observations. On the other hand a very complete account would be collected of the habits of at least one species, and many interesting things would undoubtedly come out that had not been thought of before. Perhaps it would be found that more than one species could be studied advantageously at the same time, as, for instance, one bird that is a summer resident and another that is a winter visitant within the region where observations are being made. The aim would ever be to obtain the most complete data for as many species as possible.

PERSONALS.

The twentieth congress of the American Ornithologists' Union was held in Washington, D. C., on Nov. 17, 18 and 19. Prof. Walter B. Barrows, of the Agricultural College, and Prof. Herbert Lyman Clark, of Olivet, were present, and presented papers. Dr. Clark was elected a member of the Union.

The Hon. Peter White, of Marquette, has been elected a member of the Board of Regents of the University of Michigan. Mr. White is one of the pioneers of the State, and has long been known as an admirer of Nature and an earnest supporter of higher education.

Dr. Jacob Reignard, Professor of Zoology in the University of Michigan, has received leave of absence for one year to do special biological work for the United States Fish Commission.

Mr. Louis J. Eppinger, the taxidermist, is at present mounting a collection of South African animal and bird skins collected by our late governor, Hon. H. S. Pingree.

Dr. P. E. Moody and Mr. Edwin G. Mummery contemplate a two weeks collecting trip among the birds of Oakland County, during the month of May. It is unnecessary to say that these two careful observers, will be successful and the **Bulletin** hopes to hear from them upon their return.

Mr. Herbert H. Spicer, formerly of Detroit, is now in Chicago.

Mr. J. Clair Wood opened the Oölogical season with a set of Great Horned Owl, on March 13th.

Bulletin

OF THE

Michigan Ornithological Club

A QUARTERLY MAGAZINE DEVOTED TO THE ORNITHOLOGY
OF THE GREAT LAKE REGION.

ALEXANDER W. BLAIN, JR.

EDITOR.

131 Elmwood Avenue, - Detroit, Mich.

ASSOCIATES :

J. CLAIR WOOD, - - - Detroit, Mich.

ADOLPHE B. COVERT, - - - Ann Arbor, Mich.

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EDITORIAL

After a few years of apparent sleep, the Michigan Ornithological Club has again become active, and likewise its Bulletin, which discontinued publication (with Volume III., No. 2) April, 1899, leaving No. 3 and 4 unpublished, has taken on a new lease of life and again appears as the regular record of the club.

Inexperience on the part of the editor-in-chief and tardiness on the part of some of its contributors has delayed the first number of Volume IV. much later than was at first anticipated. However, the BULLETIN wishes to thank its friends for the deep interest which they have taken in its progress. and especially to the many non-state ornithologists, who have helped in the work. From now on we hope to get the BULLETIN out on time, and improve from issue to issue as funds allow.

The BULLETIN, as the organ of the Michigan Ornithological Club, will be devoted to the ornithology of the Great Lakes Region. It is not a financial enterprise, but again appears as a co-worker to the number of already existing bird-publications.

The Bulletin would impress upon the members that it is their publication

—net the editors', and to this end we want help from every member in the form of notes, criticisms, suggestions, etc.

Bird protection will be one of the objects of the BULLETIN—however, we shall not try to discourage the taking of a limited number of birds, their nests and eggs for scientific specimens, whether they be for a public or private collection.

A. W. B. JR.

People who are fond of birds for their beauty, melody, and interesting ways, and care to go no deeper into the study than to enjoy them as one does the flowers or other beautiful, natural things, represent a majority of the bird-lovers of the state, and we hope to see them all entered upon our membership roll.

The statement that the main object of the club is the promotion of the science of ornithology in the Great Lakes Region, with this BULLETIN as the medium of record, should not scare them into visions of long Latin names, technical descriptions, and dry statistics predominating these pages. On the contrary, we intend to see that their interests are well represented and solicit from them short, readable articles, insisting only upon accuracy of observation and that they pertain to birds.

With a view to promoting this study, we trust our readers will ferret out every individual in the state of natural history inclination and favor us with his or her name and address. It is pleasing to note the steadily increasing interest in birds, and we look forward with confidence to a large membership and cordial support.

Many of the rising generation who take pleasure in bird study meet with much opposition at home. Far be it from us to question parental wisdom, but we wish to say that we have associated with birds since childhood, and at no time or in no way has the interest interfered with other business. We feel certain that field study is highly beneficial, and parents make a mistake in denying their progeny all the encouragement possible. Beyond a doubt there is a moral, intellectual and physical benefit derived. The laws of nature with which the student is constantly associated tend to ennoble and elevate the mind, while the field work quickens the eye and sense of hearing, develops a habit of observation and strengthens the power of thought and is also one of the surest promoters of physical strength, activity and health.

J. C. W.

BOOK NEWS AND REVIEWS

HANDBOOK OF BIRDS OF THE WESTERN UNITED STATES. By Florence Merriam Bailey. Illustrated by Louis Agassiz Fuertes and others. Houghton, Mifflin & Co., Boston, Mass., 1902. 12 mo., xcii.+486 pages+index: 36 full page plates, 2 diagrams, 601 figures in text. Price, \$3.50 net and 19 cents postage.

"This book is intended to do for the western part of the United States what Mr. Frank M. Chapman's *Handbook* has done for the East. It is written on similar lines, and gives descriptions and biographical sketches of all our Western birds in a thoroughly scientific yet not unduly technical form, including all the United States species not treated by Chapman, besides those which are common to both sections of the country.

"The author is well known to ornithologists and amateurs, especially under her maiden name of Florence A. Merriam. She has been assisted in the preparation of the book by her husband, Mr. Vernon Bailey, of the United States Biological Survey, whose experience of about twenty years in the field as an ornithologist and mammalogist has taken him into all parts of the West. Mrs. Bailey herself has worked in California nearly three years, and has spent some time in Utah, Arizona, Texas, and New Mexico. Her home is in Washington, D. C., where she has constant access to the government collections."

It may, perhaps, seem out of place here, in a journal devoted to the ornithology of the Great Lakes Region, to call notice to a book intended for the students west of the Mississippi. Yet in offering a western counterpart of Chapman's work, Mrs. Bailey has given to science a work which will not only be of great value to our western brethren, but of value to all who, in these days of advancement, wish to extend their ornithological knowledge beyond their native boundaries.

"The book is well equipped with illustrated keys, and the matter under each species is presented in an orderly fashion. In the case of land birds—the most important from an economic point of view—a brief statement of the food of each species is given. For the introduction Mr. Bailey contributes directions for the skinning of birds and the preparation of eggs; Dr. T. S. Palmer furnishes a paper on bird protection, and lists of birds found at various representative localities in the West, are supplied by competent ornithologists. The Introduction also treats the subject of economics, migration, note-taking, and so forth."

The many full-page plates by Fuertes and the numerous cuts in the text, add in no small measure to the value and usefulness of this work. Through the courtesy of the publishers we are able to present to our readers two reprints of Mr. Fuerte's drawings. The cut of the Ring-bill Gull, which is somewhat reduced from the frontispiece, is a work of art and can be appreciated only by those who have seen this graceful creature flying over our rivers and lakes.

To the closet naturalist of the East, this *Handbook* is indispensable, and for the students of the West it will be found as useful as we find "Chapman"—which means that it is the best book for the working ornithologist.

A. W. B., JR.

THE STORY OF A MARTIN COLONY. By J. Warren Jacobs.

This interesting paper, based chiefly on the author's observations, covers a study of these interesting birds from 1896 until 1902, at Waynesburg, Pa.

The dates of arrival from 1891 until 1902 are given, varying from March 20th until April 8th. Cold weather retarding arrival. The adult males come first, usually one by one. They depart for the South in flocks usually the third week in August—sometimes a few remain until early September.

Mr. Jacobs has had excellent opportunity to study their food habits and finds it consists largely of beetles, dragon flies, Mayflies, winged ants and butterflies, all of which are, as far as observed, caught on the wing.

One of the worst enemies of the Martin, is the English Sparrow. The author notes that this species frequently kills the young by pecking its skull. It also destroys the Martin's eggs, and builds its nest in their

houses. A continued campaign against this pest has been a means of protection, however, and the colony is growing from year to year.

Mr. Jacobs, in the spring of 1896, constructed a bird house, and owing to the growth of the colony, added to it another house in 1898, and still another in 1899. In 1902 his colony consisted of seventy two nests.

The work also treats of their eggs; the young birds; construction of houses, etc. It is printed on fine paper with clear type, and has three illustrations showing the bird houses. The work is not only interesting, but of permanent value, and a credit to the author. We shall welcome the future numbers of "Gleanings." E. A.

PUBLICATIONS RECEIVED.

Jacobs, J. Warren. Gleanings No. II. The Story of a Martin Colony (Illustrated). Published by the author at Waynesburg, Pa. Price, 35c.

Knight, Wilbur C. The Birds of Wyoming. (Bull. No. 55, Wyoming Experiment Station. Laramie, Wyo.), 8 vo., pp. 174, numerous half-tone plates and text illustrations. Sent free on application to the Director, Experiment Station, Laramie, Wyo.

Journal Maine Orn. Soc., Vol. V., No. 1. January, 1903.

Educational Leaflet (illustrated), National Committee of Audubon Societies. New York City, 1903. No. 1, The Night Hawk; No. 2, The Morning Dove.

Ridgeway, Robert. The Birds of North and Middle America. Part II. Bull. No. 50, U. S. Nat. Mus., Washington, 1902. 8 vo. xx.+834 pages; xxii. plates.

NOTES FROM THE FIELD AND MUSEUM

A RED-WINGED BLACKBIRD (*AGELAINUS PHOENICEUS*), AT DRATON PLANES DURING THE WINTER 1901-2.

Editor of the Bulletin:

The Red wing that you wish to know about made its winter quarters in a marsh which was covered with cat-tail stalks and long grass, and filled an area of about an acre. It was also well protected by surrounding hills and trees. The first time I noticed this bird was on a cold day about the last of December, he was sitting on a cat-tail stalk, with his head snuggled down in his feathers, which appeared to be on end.

As I approached he suddenly braced up and flew about two rods to another stalk which convinced me that he was well and not wounded as I had supposed. About three weeks later I happened to pass this same marsh when I noticed him again sitting near the same place as before. This day I tried to catch him but could not succeed as I could not get closer than twenty feet of him.

He finally left the marsh but stayed away only for a short time. By this time I became thoroughly convinced that he could care for himself so I left the marsh returning only at intervals from then to the middle of March. To my surprise he lived through the Winter and was at last lost among the Spring migrants of his kind that arrived in March.

B. STOWELL.

Pontiac, Mich.

BOTAURUS LENTIGINOSUS IN OAKLAND COUNTY IN WINTER.

An adult male American Bittern (*Botaurus lentiginosus*) was captured at Waterford, Oakland County on January 1st, 1903, by R. E. Miller. It died three days later in spite of the fact that it was given proper food. The bird had evidently lived upon frogs which were secured from a small stream in the marsh which did not freeze over. When caught a good sized frog could be felt in the oesophagus.

The bird was in fine plumage and apparently uninjured but upon dissection its right humerus proved to be broken near the condyles—thus depriving it of the power of flight. Small shot were found imbedded in the walls of the abdomen. This specimen was mounted by L. J. Eppinger and is now in my collection.

A. W. BLAIN, JR.

WHISTLING SWAN IN WASHTENAW COUNTY.

A male Whistling Swan (*Olor Columbianus*) was taken at Whitmore Lake, Washtenaw County, on March 7th, 1903, by T. F. Taylor. The specimen was in fine condition.

A. B. COVERT.

Ann Arbor, Mich.

AN ADDITION TO THE AVIFAUNA OF KALAMAZOO COUNTY.

In the "*Ornithologist and Oologist*" of 1885 appeared my list of the birds of Kalamazoo County. This list annotated and embraced two hundred and thirty species. From that date until January, 1898, were added, with the aid of my friends, nine more species, which additions were recorded in the January, '98, issue of the "*Bulletin*" of the Mich. Orn. Club.

Since that date, but one new species has been recorded in this country, the Black Tern (*Hydrochelidon nigra surinamensis*), which appeared at Long Lake, about eight miles from Kalamazoo, in May, 1898. A pair of them built a nest and laid three eggs, which were noted on May 27 of that year.

This is not brought to the notice of observers because of the rarity of the species, for the nesting of this bird is a common occurrence at the St. Clair Flats and several other points in the Great Lake Region, but it is noted here to show how birds will extend their range. This makes two hundred and forty species for Kalamazoo County.

MORRIS GIBBS, M. D.,

Kalamazoo, Mich.

BREEDING OF THE HENSLOW'S SPARROW IN CALHOUN COUNTY.

On May 31st, 1896, I found a nest and four fresh eggs of the Henslow's Sparrow (*Ammodramus henslowii*) near Hart's Lake, Calhoun County. The nest was situated in the tall grass in an open meadow, and is composed of dry grass.

This set is a typical one, the eggs differing in appearance from any other sparrow, the nearest resemblance being that of the Grasshopper Sparrow. The eggs, which have a greenish gray cast, are beautifully marked with blotches and dots of brown and lilac. The set exhibits the following respective measurements: 74x52, 74x52, 74x53 and 76x52. The eggs are not as glossy as those of the Grasshopper Sparrow and are easily distinguished from them.

Battle Creek, Mich.

E. ARNOLD.

NOTES ON THE BLACK TERN.

The following are extracts from my note book:

June 17th, 1900—Mouth of Middle Channel, St. Clair Flats. I found a nest containing six Black Tern eggs, which could be easily separated into two sets of three, as two distinct types of eggs were represented. My brother took a nest of six eggs from this same island in 1899. This island is about 100 by 200 feet. Total nests for island were: Black Tern 14, Pied-billed Grebe 2, Florida Gallinule 2, Common Tern 3, Least Bittern 1, Long-billed Marsh Wren 4.

June 16th, 1901—Mouth of Middle Channel, St. Clair Flats. Took another nest of six Black Tern eggs from this island. These were also the property of two birds, ground color brown in three and remainder greenish, former under size and blunt, latter normal. Remarks: The six of 1900 were far advanced, so did not take them. Sets of four are much rarer than six and the few we have found were undoubtedly deposited by a single bird.

Detroit, Mich.

WALTER C. WOOD.

A LONE FISHER.

Surprises are always a joy to the bird-student, and especially in the Winter, when our local bird fauna is so limited.

On Jan. 14th of this year I received the greatest surprise of the season in the form of a Belted Kingfisher in the Water Works Park of this city. It seemed very funny to see a bird which we associate with a June camp, flying around when the ground was covered with snow and the river with ice. Why he should stay at this dreary place during our long cold winter months is indeed a puzzle to me, the only feeding place which he could find being a small canal into which empties the warm water from the water works, and therefore does not freeze over.

C. F. FREIBURGER, JR.,

Detroit, Mich., Feb. 21, 1903.

PERSONALS

Leon J. Cole is studying in Cambridge, Mass. Mr. Cole writes that he still considers himself a Michigander, and expects to be with us during our Summer meetings.

Mr. Herbert E. Sargent has been elected curator of the Kent Museum at Grand Rapids.

Hon. Chase S. Osborn, of Sault Ste. Marie, is now traveling in Europe. We have confidence in believing that he will upon his return join the ranks of the M. O. C., and give it his cordial support, as heretofore.

AN ANNOUNCEMENT CONCERNING BIRD DISTRIBUTION.

Field ornithology will interest a greater number of the members of the Michigan Ornithological Club than any other aspect of bird study. This will be also, without doubt, its greatest field of usefulness. The extensive collections and libraries which are necessary for taxonomic and anatomical studies are beyond the reach of most of us. To know our limitations is one of the first conditions for determining what we should avoid, and at the same time what we may reasonably expect to accomplish. General aims are all very well in their proper places, but when it comes to practical concrete work a limited and definite aim is necessary. The Committee on Geographical Distribution of the Club has therefore decided to recommend that all the members of the Club make accurate and detailed notes for this season on the following birds:

Brown Thrasher
Screech Owl
Towhee

Baltimore Oriole
Orchard Oriole
Humming Bird.

Full data regarding the following points is desired: Date of spring arrival, when first abundant, length of breeding season, date of fall departure, and relative abundance. In some cases an exact count can be made of the number of individuals observed. With regard to the Screech Owl it is especially important to record the exact number, and the color of each individual, whether red or gray, in order that the relative abundance of these two forms may be determined. The collection of this data is to be considered of primary importance. In addition to this work all members, in Michigan especially, are also urged to work up their local list. Migration blanks will be furnished to all members on application to the Secretary of the Club. At the end of the season this data is to be sent to the Chairman at the address given below. This data will then be prepared for publication by the Committee and full credit will be given to each person for all data received.

CHAS. C. ADAMS.

Museum, University of Michigan, Ann Arbor, Mich.

MINUTES OF CLUB MEETINGS.

In response to a circular letter sent out by Alex. W. Blain, Jr., the Michigan Ornithological Club was reorganized February 13th, 1903, at Mr. Blain's residence, 131 Elmwood Ave., Detroit. Mr. Blain was appointed Chairman of meeting and B. H. Swales, Temporary Secretary.

The officers were elected as follows: A. B. Covert, of Ann Arbor, President; Dr. P. E. Moody, of Detroit, Vice-President; B. H. Swales, of Detroit, Secretary-Treasurer, and A. W. Blain, Jr., Editor and Business Manager.

Discussion followed on the Club publication and it was decided to continue the former "Bulletin." The annual dues were made one dollar, including the club organ.

A Committee on Bird Protection was elected as follows: E. Arnold, of Battle Creek, Chairman; Prof. Walter B. Barrows, of the Agricultural College, J. B. Purdy, of Plymouth, and Wm. Dutcher, of New York City.

Chas. C. Adams, N. A. Wood and A. B. Covert were appointed a committee to revise the constitution.

A letter was read from T. F. McIlwraith announcing the death of his father, Thomas McIlwraith, one of the oldest ornithologists of the Great Lake Region.

Meeting adjourned to February 27.

February 27.—Meeting held at the Detroit Museum of Art. President Covert in chair. About twenty members present.

Report of Committee on Constitution read and adopted by articles and sections.

J. Clair Wood, of Detroit, and A. B. Covert, of Ann Arbor, were elected Associate Editors of the "Bulletin."

A Committee on Geographical Distribution was elected consisting of Chas. C. Adams, Chairman; Prof. W. B. Barrows and B. H. Swales.

Director A. H. Griffith tendered the use of the Museum of Art as a place of meeting for which he was given a vote of thanks.

Meeting adjourned to March 27, at Ann Arbor.

March 13th.—Special meeting called by the President. Held at the residence of Mr. Blain.

Decided that all members be admitted to the Club whose names are now on the Secretary's books.

Bryant Walker, of Detroit, was elected an additional member of the Committee on Geographical Distribution.

Discussion followed on the Constitution. Amendments and corrections were made and adopted.

Meeting adjourned to March 27th at Ann Arbor.

This meeting will be held in connection with the meetings of the Michigan Academy of Science.

BRADSHAW H. SWALES,

Secretary.

The fourth meeting of the Club was held at Ann Arbor on March 27th in Prof. Adams' office in the U. of M. Museum. Two sessions were held. About thirty members were present including Prof. Walter B. Barrows, and other leading naturalists of the state. The full minutes will be published in the June issue.

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Arnold, Edward, 126 Van Buren St., Battle Creek.
Adams, Prof. Chas. C., University of Michigan, Ann Arbor.
Abbott, Gerald A., 945 Marquette Bldg., Chicago, Ill.
Atkinson, George E., Winnipeg, Manitoba, Canada.
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Burroughs, C. H., Museum of Art, Detroit.
Butler, T. Jefferson, 79 Home Bank Bldg., Detroit.
Burgess, Bruce K., 920 E. Washington, Ann Arbor.
Barrows, Prof. Walter B., Agricultural College P. O.
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Balmer, James L., Marysville.
Coughlan, Miss Anna, 320 Hudson Ave., Detroit.
Covert, Adolphe B., Ann Arbor.
Chapman, Theo. L., M. D., Harper Hospital, Detroit.
Craven, Jesse T., 572 Hubbard Ave., Detroit.
Cole, Leon J., 41 Wendell St., Cambridge, Mass.
Clarkson, Mrs. S. W., 1816 Tappan St., Ann Arbor.
Davison, Wm. A., 383 Morrell Ave., Detroit.
Deane, Rutheven, 504 State St., Chicago, Ill.
Dutcher, Wm., 525 Manhattan Ave., New York City.
Eddy, Newell A., 615 North Grant St., Bay City.
Eppinger, Louis J., 516 Chene St., Detroit.
Friedrich, George J., Brooklyn.
Freiburger, Chas. F., 462 Cadillac Boul., Detroit.
Frothingham, Earl H., 615 Monroe St., Ann Arbor.
Gibbs, Morris, M. D., Kalamazoo.
Grenell, Ralph W., Detroit.
Griffith, Prof. A. H., Museum of Art, Detroit.
Grose, H. D., Box 1261, Ann Arbor.
Grant, Wilbur H., 625 Church St., Ann Arbor.
Gates, Neal A., M. D., Dexter.
Hinsdale, Prof. W. B., 611 Forest St., Ann Arbor.
Hubel, Fred C., 112 Alexanderine Ave., Detroit.
Hackett, Hugh A., John Hopkins University, Baltimore, Md.
Harris, Glenn V., 392 Bowen St., Detroit.
Hull, Geo. M., Ypsilanti.
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Kleinstuck, Carl, Saxonia Farm, Kalamazoo.
Kelsey, Mrs. F. A., Grosse Ile.
Lord, F. H., Capac.
Mummery, Edwin G., 24 E. Atwater St., Detroit.
Moody, Phillip E., M. D., Harper Hospital, Detroit.
McMahon, Miss Evangeline, 769 Jefferson Ave., Detroit.
Miller, Raymond E., 31 Winder, Detroit.

- Manton, Walter P., M. D., 32 Adams Ave., Detroit.
Mackay, Alexander J., Ailsa Craig, Ontario.
Newcomb, C. A., Jr., 164 Putnam Ave., Detroit.
Purdy, James B., Plymouth.
Pomeroy, Harry K., Kalamazoo.
Preston, Clifford, Dexter.
Purdum, C. C., M. D., Pawtucket, R. I.
Price, Arthur E., Grant Park, Ill.
Ritchie, Archer F., 788 Champlain St., Detroit.
Reighard, Prof. Jacob., University of Michigan, Ann Arbor.
Ricks, J. J., 548 South State St., Ann Arbor.
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Silloway, Prof. P. M., Lewistown, Montana.
Stockman, A. H., Arcadia.
Spicer, Herbert H., 5852 Rosalie Court, Chicago, Ill.
Swales, Bradshaw H., 46 Larned St. W., Detroit.
Thompson, Miss Harriet W., 714 South State St., Ann Arbor.
Van Fossen, Dr. John, Ypsilanti.
Wood, J. Clair, 179 17th St., Detroit.
Wood, Norman A., Museum, U. of M., Ann Arbor.
Wood, Walter C., 179 17th St., Detroit.
Watkins, L. D., Manchester.
Watkins, L. Whitney, Manchester.
Warren, Harry S., 149 Gladstone Ave., Detroit.
Wisner, Charles, 1314-16 Chamber of Commerce, Detroit.
Wolcott, Robert H., M. D., Univ. of Neb., Lincoln, Neb.
Williams, F. R., 598 South State St., Ann Arbor.
Walker, Bryant, 18 Moffit Block, Detroit.
Walker, Ellis B., 1030 East Huron St., Ann Arbor.
White, Hon. Peter, Marquette.
White, C. A., Detroit College of Medicine, Detroit.



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in the Great Lake Region.



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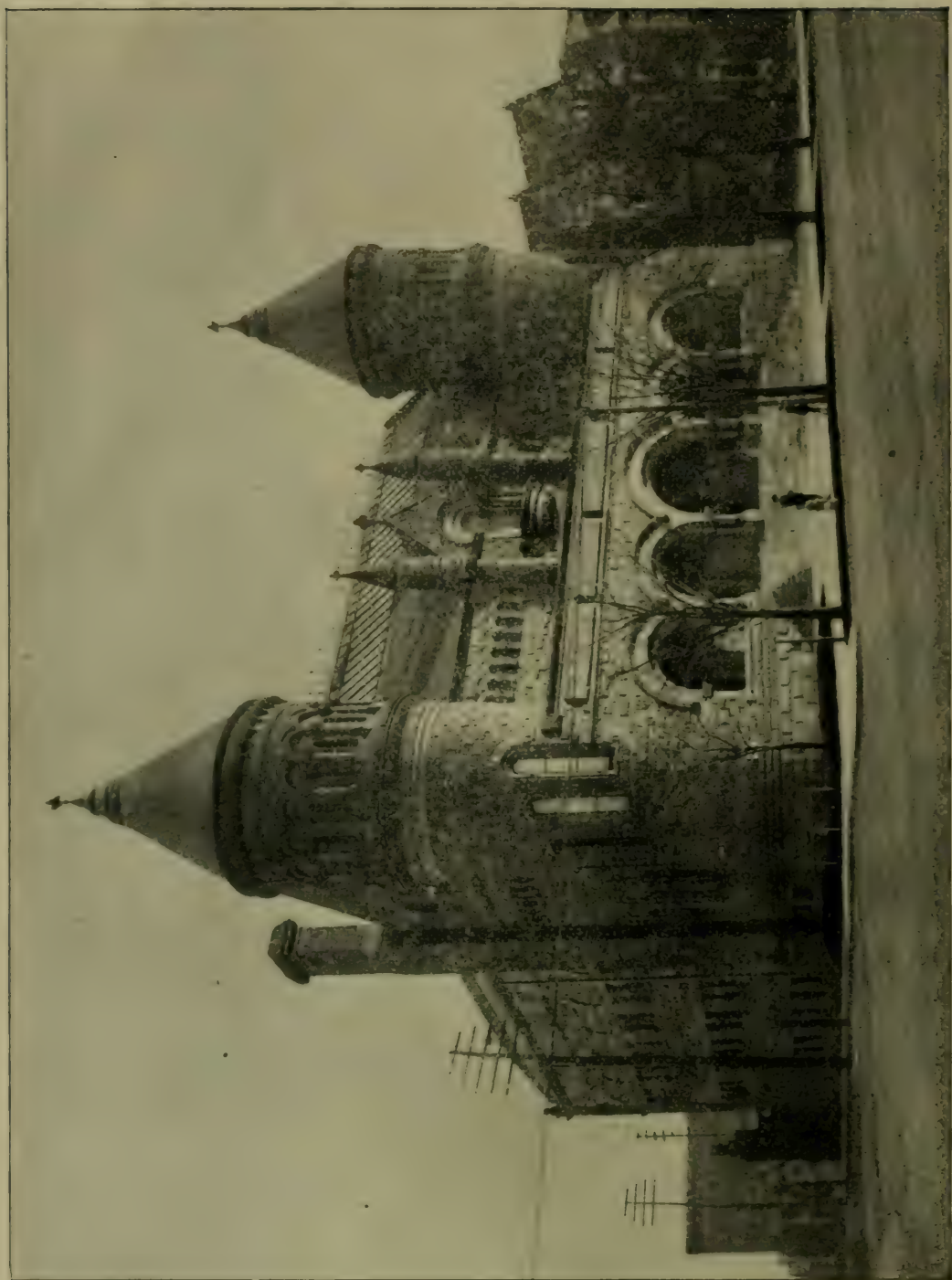
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Articles of general interest relating to the bird life of the Great Lake Region are solicited. They should be in the hands of the editor not later than the 20th of the month preceding publication.



DETROIT MUSEUM OF ART

BULLETIN

OF THE

Michigan Ornithological Club

PUBLISHED QUARTERLY IN THE INTERESTS OF ORNITHOLOGY
IN THE GREAT LAKE REGION.

VOL. IV.

JUNE, 1903.

No. 2.

A LIST OF THE LAND BIRDS OF SOUTHEASTERN MICHIGAN.

BRADSHAW H. SWALES.

(Continued from page 17).

40. **Trochilus colubris** (Linn).

RUBY-THROATED HUMMING BIRD.—Summer resident, fairly abundant. I have recorded it as early as April 28 (1902), and as late as May 12 (1894). However, the first week in May generally sees the bird here. Departs about the middle of September. In 1893 I saw several as late as October 2nd. I found a late set of two fresh eggs on July 15th, 1896.

41. **Tyrannus tyrannus** (Linn).

KING BIRD.—A common summer resident. I seldom see the bird until about May 3rd, but occasionally it arrives in late April—April 27th, 1889, April 30, 1896, and April 30, 1897. Seldom seen after September first.

42. **Myiarchus crinitus** (Linn).

CRESTED FLYCATCHER.—Fairly abundant summer resident—apparently more so than ten years ago. Arrives the latter part of April—my earliest bird came April 9, 1889. Departs September 10-15.

43. **Sayornis phoebe** (Lath).

PHOEBE.—Our most abundant Tyrannidae. Arrives from March 16 (1902), to April 3 (1891). Departs about the 10th of October. My latest record is October 20, 1889.

44. **Sayornis saya** (Bonap).

SAY'S PHOEBE.—One bird taken at Grosse Isle, 1853, according to Rev. Chas. Fox. Given in Miles' list of 1860.

45. **Contopus virens** (Linn).

WOOD PEWEE.—Abundant summer resident. Varies to a considerable extent in its dates of arrival. In 1890 and 1902 I observed my first birds May 3rd, and in 1896 and 1899 not until May 14th. Departs about September 15-20. My latest record is October 5, 1889.

46. **Empidonax flaviventris** (Baird).

YELLOW-BELLIED FLYCATCHER.—A rare migrant. I have never seen the bird, but it has been taken in Wayne County by E. W. Durfee. (Cook, Birds of Mich., 96.)

47. **Empidonax virescens** (Vieill).

GREEN-CRESTED FLYCATCHER.—A fairly common summer resident arriving about the middle of May. Departs the latter part of August. Generally frequents thicker portions of the woodlands than other flycatchers.

48. **Empidonax traillii alnorum** (Brewst).

ALDER FLYCATCHER.—An abundant summer resident breeding commonly in the orchards and thickets bordering the woods. I have seen it as early as May 6 (1894), but generally not until the middle of the month. Departs September 10-17.

49. **Empidonax minimus** (Baird).

LEAST FLYCATCHER.—Fairly common summer resident. I have never seen it before April 29th (1900), generally not until May 15. Departs during the first week in September.

50. **Otocoris alpestris praticola** (Hensh).

PRAIRIE HORNED LARK.—Resident. However, a number of the species are migrants. I have seen the bird common in every month of the year. Breeds in March and April. I found a late set June 19, 1895.

51. **Cyanocitta cristata** (Linn).

BLUE-JAY.—Resident, abundant.

52. **Corvus corax principalis** (Ridgw).

NORTHERN RAVEN.—“Formerly common in Wayne County” (J. S. Tibbets). Now, probably extinct. J. Claire Wood saw a pair in 1885. McIlwraith in his “Birds of Ontario” (276), records a bird in his collection that was shot at the St. Clair Flats. He was informed that it was an occasional visitor there in late fall. I have never heard of the occurrence of this bird there in fifteen years.

53. **Corvus americanus** (Aud).

AMERICAN CROW.—A portion of the species are resident but the main body are migrants. Abundant.

54. **Dolichonyx oryzivorus** (Linn).

BOBOLINK.—Abundant summer resident. My dates of arrival are May 11, 1889; May 11, 1890; April 29, 1891; April 27, 1892; April 27, 1893; May 5, 1894; May 5, 1895; April 26, 1896; May 6, 1897; May 7, 1899; May 13, 1900; May 12, 1901; April 29, 1902; May 3, 1903. Departs about middle of September—latest date Sept. 23, 1902.

55. ***Molothrus ater*** (Bodd).

COWBIRD.—Common summer resident. Arrives about March 20, lingers as late as November 3rd. I have one record of the bird in winter when I saw several in January, 1890, feeding with the English sparrows in the city.

56. ***Agelaius phoeniceus*** (Linn).

RED-WINGED BLACKBIRD.—Very abundant summer resident. My earliest birds were seen February 26, 1891; latest arrivals April 1, 1900. The main body are gone generally by October 20th, but I have seen flocks as late as November 9th (1902).

57. ***Sturnella magna*** (Linn).

MEADOW LARK.—Common summer resident; a few are resident. Arrives from March 5 (1894), to March 26 (1899). Depart during the latter part of October. A few linger until November 1st.

58. ***Icterus spurius*** (Linn.)

ORCHARD ORIOLE.—Not as abundant as *I. galbula*. Summer resident—rather a late arrival—generally not seen until May 10-15. I have seen it as early as May 5 (1901).

59. ***Icterus galbula*** (Linn).

BALTIMORE ORIOLE.—Common summer resident. My earliest dates of arrival are April 25, 1896, 1899, latest May 7, 1900. Departs in early September.

60. ***Scolecophagus carolinus*** (Mull).

RUSTY BLACKBIRD.—Very abundant during the migrations—March and October. J. Claire Wood shot one bird January 25, 1891, near the River Rouge, which is the only winter record.

61. ***Quiscalus quiscula aeneus*** (Ridgw).

BRONZED GRAKLE.—Abundant summer resident. Arrives usually during the second week in March, although in 1891 they came February 24, in 1896 not until March 29. Departs the latter part of October. Some years a few linger until November—in 1901, the 3rd. One winter record in December of 1894.

62. ***Coccythraustes vespertinus*** (Coop).

EVENING GROSBEAK.—A rare straggler. I have never noted it except in March and April. A flock of about two hundred birds were first observed by J. Claire Wood, March 3rd, 1889, north of Detroit. These were very tame and unsuspicious and lingered in the same locality until the 25th of April. I saw one bird on November 16, 1889. In April, 1890, several were seen by Mr. Wood. Since 1890 none have been seen here. Mr. Samuel Spicer of Goodrich, Genessee Co., informs me that a female of this species was seen in January, 1903, on his farm, remaining for several days.

63. ***Carpodacus purpureus*** (Gmel).

PURPLE FINCH.—Not common, migrant, usually seen in April. My earliest records are March 1, (1903), March 6 (1892). Latest date May 8 (1897). Seldom noted in the fall.

64. ***Loxia curvirostra minor*** (Brehm).

AMERICAN CROSSBILL.—A rare winter visitor. I have never seen the bird here personally. Mr. Purdy has noted it at Plymouth in winter and early spring. Two were taken in Wayne County in January, 1892, by D. Sanderson. The absence of pine probably accounts for the absence of this bird and *L. leucoptera* in Wayne County.

65. ***Loxia leucoptera*** (Gmel).

WHITE WINGED CROSSBILL.—Very rare winter visitor. One pair were shot near Plymouth, according to Mr. Purdy. However, it has been taken in Oakland and Genessee Counties, north of here. Mr. Samuel Spicer records a pair breeding at Goodrich, Genessee County, in 1888. (O. & O., 1889).

66. ***Acanthis linaria*** (Linn).

REDPOLL.—An irregular visitor in winter and spring. Not common.

67. ***Spinus tristis*** (Linn).

AMERICAN GOLDFINCH.—Common resident, not as abundant in winter.

68. ***Spinus pinus*** (Wils).

PINE SISKIN.—An irregular visitor in winter, occasionally in spring and fall. It is common some years, in others entirely absent.

69. ***Passerina nivalis*** (Linn).

SNOWFLAKE.—Abundant during some winters, in others apparently absent. I have noted it as early as October 31 (1902), and as late as March 16, (1903). Abundant during the winter of 1901 and 1902.

70. ***Calcarius lapponicus*** (Linn).

LAPLAND LONGSPUR.—A rare winter and summer visitor. Neither Mr. Wood or myself have ever observed the bird here. Mr. Alexander records it during (Butler's "Birds of Indiana," page 930) the winters of 1891 and 1892 and springs of 1892, 1893, 1894, and 1895, near Plymouth. McIlwraith (Birds of Ontario) records a large flock seen in early May at Mitchell's Bay, on the Canadian side of the Flats, and a number were secured.

71. ***Pooecetes gramineus*** (Gmel).

VESPER SPARROW.—Abundant summer resident. Arrives usually in early April, sometimes as early as March 19 (1897), March 20, 1892. Departs in early November. I have seen it as late as November 24, 1889, a mild fall, and November 10, 1902.

72. ***Ammodramus sandwichensis savanna*** (Wils).

SAVANNA SPARROW.—A fairly common migrant. April, September and October, more abundant during the fall.

73. ***Ammodramus savannarum passerinus*** (Wils).

GRASSHOPPER SPARROW.—A rather rare summer resident. It may be more common than supposed, owing to its secluded and skulking habits. J. Claire

Wood added the bird to the list of breeding birds of Wayne County by finding a nest and four eggs May 28, 1902. Mr. Purdy says "increasingly abundant at Plymouth."

74. ***Ammodramus henslowii*** (Aud).

HENSLOW'S SPARROW.—Rare summer resident. Mr. J. B. Purdy records a nest found July 27, 1893, near Plymouth (Auk, 1897, 220). W. E. Saunders observed several near the mouth of the Thames River, Ontario, bordering the Flats, also two at Sarnia, July 2. (Bull. Mich. Ornith. Club. Vol. 2).

75. ***Ammodramus nelsoni*** (Allen).

NELSON'S SPARROW.—One record only—J. Claire Wood shot an adult male Sept. 27, 1893, on a mudflat bordering the Rouge River, which is now in my collection.

76. ***Chondestes grammacus*** (Say).

LARK SPARROW.—A rare summer resident. We have seldom noted it of late years. Mr. J. C. Wood, E. W. Durfee and myself have found it nesting here.

77. ***Zonotrichia leucophrys*** (Forst).

WHITE-CROWNED SPARROW.—Common migrant in May and October. I have seen it as early as April 27 (1889) and as late as May 21 (1899).

78. ***Zonotrichia albicollis*** (Gmel).

WHITE-THROATED SPARROW.—Very common during the migrations—April and early May, September and October. More abundant than *Z. leucophrys*.

79. ***Spizella monticola*** (Gmel).

TREE SPARROW.—Abundant winter resident, remaining as late in the spring as April 7 (1891 and 1901), and April 5 (1903). Returns in late October.

80. ***Spizella socialis*** (Wills).

CHIPPING SPARROW.—Common summer resident. Arrives generally in early April, but I have seen it as early as March 29 (1891). I have seen a few as late as October 25 (1893), but the bulk of the species leave much earlier.

81. ***Spizella pusilla*** (Wils).

FIELD SPARROW.—Abundant summer resident. Arrives usually in early April, sometimes during the last part of March. In 1903 I saw my first birds March 19, an unusually early date. Departs in late September. October 19, 1889, is my latest record date.

82. ***Junco hyemalis*** (Linn).

SLATE-COLORED JUNCO.—A common migrant, a number remain throughout the winter. Junco drifts from north about the 15th of October. I have observed them as late in the spring as May 7 (1889), but the middle of April generally sees the bulk gone.

83. *Melospiza melodia* (Wils).

SONG SPARROW.—Common summer resident. A few are resident in certain favored localities, generally near the Detroit River. Arrives from March 3 (1901), to as late as March 27 (1896). Departs mainly in late October. A few can be seen as late as November 10 (1901-1902).

84. *Melospiza lincolni* (Aud).

LINCOLN SPARROW.—A rare transient during the migrations. J. Claire Wood shot a male October 1, 1900, which is now in my collection.

85. *Melospiza georgiana* (Lath).

SWAMP SPARROW.—A fairly common migrant—a few may possibly breed. J. Claire Wood saw a pair June 8, 1902, in an inland swamp, which probably had a nest near by. Mr. Purdy says that it breeds at Plymouth. I have found it more common in October.

86. *Passerella iliaca* (Merr).

FOX SPARROW.—Not a common migrant, and according to my experience, not as abundant as it was in the 80's. Appears from March 23 (1889) to April 13 (1889). Noted in fall as late as October 13, (1889). Some seasons pass and I do not see a single bird.

87. *Pipilo erythrophthalmus* (Linn).

TOWHEE.—Common summer resident. Appears from March 16, 1894, my earliest arrival, until the end of March. Departs about the 20th of October. I have seen it as late as November 3 (1901). Have never observed it in winter.

88. *Cardinalis cardinalis* (Linn).

CARDINAL.—A rare transient visitor generally seen only in winter. I have but few records of the bird here—November, 1897, December 8, 1899, January 26, 1901, February 22, 1902, January 1, 1903. I saw one male May 19, 1901, in my yard at Detroit—the only bird noted except in winter.

(To be continued.)

LOCAL HERONIES.

J. CLARE WOOD.

Of the twelve species of herons that breed in the United States the Great Blue (*Arda herodias*) has the most extended range, nesting colonies being common from Washington to southern California, Maine to Florida. They are, perhaps, more abundant along the gulf coast than elsewhere, some of the colonies numbering thousands of nests. As may be supposed they are common throughout Michigan and nearly every county can claim at least one colony. That the Great Blue Heron bred more abundantly in former years, there can be no doubt, and, accepting the authority of old residents, all the townships bordering the Detroit river contained colonies. The nearest to this city, of which I have authentic information, was about six miles from the

present limits in Ecorse, but this ceased to exist some thirty years ago. A rather large community flourished in Brownstown up to ten years ago, when the cutting away of the timber drove them elsewhere. I know of but four existing colonies at the present writing, and of these I have failed to visit the one in Washtenaw County. Two are in Wayne County and about three miles apart, but their feeding grounds lie in opposite directions, one patronizing the Huron River and the other what is known as the River Rouge.

I did not learn of this Huron colony until last March, when I made a survey of the woods that contained it. Five nests were counted—one in a sycamore and the remainder in elms. The farmers could tell me nothing except that last year a severe storm blew some of the nearly grown young from the nests which they captured, and also that in 1901 the nests numbered fourteen.

The other herony was found on April 22, 1900, but as this was too early for eggs, I favored it with another visit May 6. The nests were in sycamore trees and, like all I have seen, were as far out on the branches as safety would permit. They were four in number—two in a living tree and the remainder in one entirely dead and consequently inaccessible. The nests examined were 85 and 90 feet above the ground by actual measurement, and about 30 feet lower than the other two. They contained three and four eggs, and as incubation had commenced these sets were doubtless complete. During the following winter both trees were cut down, and only two pair nested in the vicinity during 1901-2. These were probably the birds that occupied the dead tree and were not molested. As I have not disturbed them let us hope they will continue to nest for many years. The chances seem good as the nests are in high sycamores and the birds so wary that I have never been within gun shot of them.

While on a trip north in the winter of 1898, I noticed a number of large nests from the car window. This was in Springfield Township, Oakland County, and is what we now call the Clarkston Herony. Not having seen a nesting community of these birds I determined to investigate this one, and made the trip on May 11, 1900. A large herony is a grand sight, especially when viewed for the first time. As I approached, the birds arose by hundreds and circled overhead, uttering loud honking cries. With heads drawn up to the shoulders, necks protruding in lumps, legs trailing behind, and great stretch of wings beating the air with slow even strokes, they presented a spectacle never to be forgotten. Soon assured of my friendly disposition they settled on nests and branches and became indifferent to my presence, except when a twig cracked; they then arose with cries of alarm but quieted down in a few moments. The most noticeable characteristic was an absence of motion. Their bodies remained like statues and nearly all movement was performed by head and neck, but in a slow, gliding manner decidedly snake-like. Very few males were present. One of these alighted on the side of a nest and fed its mate by regurgitation. Whether this was the regular custom, or the female leaves the nest for the purpose of feeding, or the birds share the labor of incubation, could not be determined in the short half hour I was in their company. However, I am inclined to the first theory as only females were sitting, and there seemed to be one on each nest. In birds that colonize for the purpose of breeding one would expect to find the most amiable social relations, but such was not the case with these herons. For a female to en-

croach upon the territory of another was a declaration of war, and it was always the intruder that turned tail. So large were the nests that the setting birds were entirely concealed from the ground below, but the erect heads and

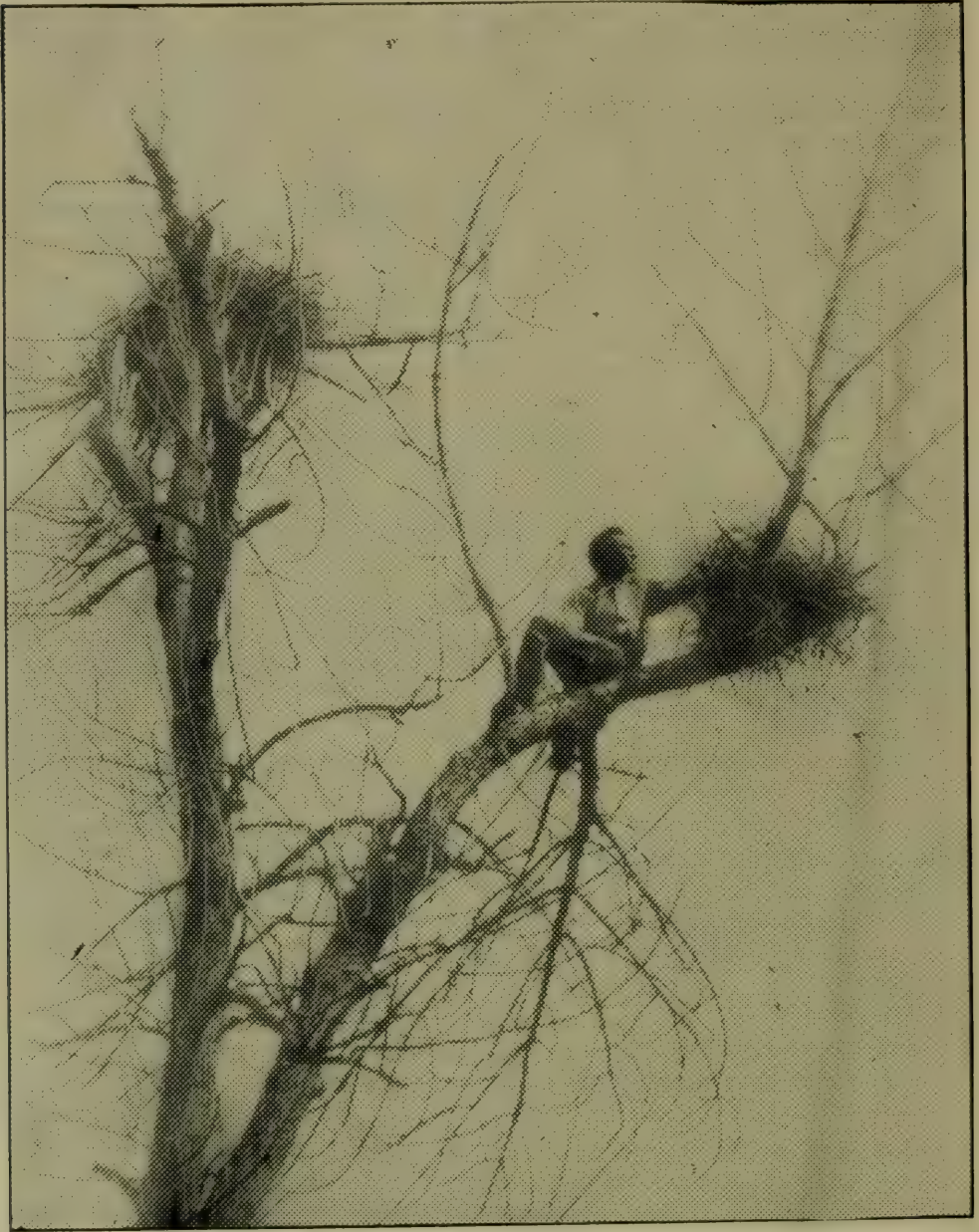


PHOTO BY RALPH W. GRENNELL

A TREE AT THE CLARKSTON HERONY.
(Lower nest 92 feet above the ground.)

long necks of those in neighboring trees were visible. Probably this was not the natural pose, but one of expectation and uneasiness. The nests were scattered over about four acres of elm and ash trees, and ranged from one to

fourteen per tree, although eight was the usual number. Had it not been a case of catch the train or stay all night I would have devoted a day to this colony as much interesting and valuable data could have been secured.

A change in train time during the year encouraged a party of us to make all preparations for an oölogical raid upon the herons, and this was executed May 9, 1901. Imagine the disappointment when our destination was reached—the herony had been abandoned. Silence reigned and even most of the nests destroyed by winter winds. The cause was soon ascertained. Scattered about were skeletons and feathers, mostly the remains of young birds. We knew what had happened. Young herons remain in the nest until nearly large as their parents, and at this stage the farmers had enjoyed a wholesale slaughter. However, the herony was not entirely deserted. Amid this story of courage and woe there sat a young horned owl (*Bubo virginianus*) close beside an old heron's nest about which clung a profusion of owl feathers. In silence we were retracing our steps when our melancholy musings were interrupted by a familiar hok and a heron glided into the woods from a great height. We, of course, made for the point, but without enthusiasm until the new colony was actually sighted. Sad experience had taught these birds the wickedness of man, and they left as we approached and perched upon the tamarack trees, a quarter of a mile away, where they remained all day, only an occasional individual returning to inspect our doings, but always from high in the air. Sycamores are the favorite trees, but we saw none in this wood. The seventy-two nests were placed in oak, elm and ash, but mainly the latter. As in the old herony the greatest number was in an elm and consisted of ten nests, while there was the usual number per tree. They were all similar in appearance, being deeply hollowed and composed entirely of sticks so compactly and strongly interlaced that it was no easy task to dislodge one. This was a necessary precaution as they swayed with the lightest breeze. Their average height was 85 feet above the ground. The usual number of eggs per set was four or five, and six was more common than three. Each set was very uniform in size, shape and color shade, plainly indicating that in no case had more than one bird laid in one nest. Incubation varied from slight to far advanced. The only fresh egg was in one of these nests in an ash tree. One of the remaining nests held five eggs, while the other was occupied by two of the Red-tailed hawk (*Buteo borealis*) upon the point of hatching. We did not take many eggs, and returning to explore this woods the latter part of the month, we passed through the herony and could plainly hear the young in the nests. Having never seen a heron in the down I climbed to a nest with three young and an unfertile egg. Although the birds could not have been more than a day old we heard their cries for food before ascending the tree.

Our next visit was May 3rd, 1902, and we found the colony reduced to 40 nests and six the greatest number in one tree—an ash this time. Very little climbing was done. I ascended a large ash to the three nests it contained and I secured a set of four and two of five—all fresh. Twenty feet below the lowest nest and just sixty-five feet above the ground, the main trunk divided into two large branches and, while lowering the herons' eggs I noticed a male Nuthatch (*Sitta carolinensis*) carry food into a knot hole at this fork. The depth of this hollow was three inches, and its width five. The nest was composed entirely of rabbit and mouse hair and held eight slightly incubated eggs, one of which was cracked. I also flushed a Crow

from her two eggs, and two newly hatched young. The nest was about thirty feet up and the lowest in the herony. While most of the party were busy with the herons, I spent some hours watching a pair of Yellow-bellied Sapsuckers (*Sphyrapicus varius*.) They continually went the rounds of all suitable nesting sites, but always within the boundaries of the herony. I finally concluded they would occupy a dead birch or elm stub. My last trip was May 30, and made especially to look up the sapsuckers. They were at home in the elm which was about forty feet high, and between two large ash trees occupied by herons' nests. The cavity was seven inches deep and three by five in diameter, and the entrance just one foot below the stub top. It contained six slightly incubated eggs. I saw no sapsuckers elsewhere in the woods, and am positive no crows were breeding except the pair in the colony.*

Thus concludes my experience with this much persecuted and very interesting community of herons. It is useless to lament the wholesale slaughter as extermination is far in advance of adequate protection. From more than two hundred nests on the first visit it has decreased to forty,* but as the birds are now thoroughly acquainted with man's wonton cruelty let us hope for a brighter future.

Detroit, Mich.

I would not credit to socialistic tendency the presence of the five species found nesting. Surroundings most congenial to their tastes might have been the cause, but I am inclined to the opinion of protective influence. It is certain no safer site could have been chosen, as among the big herons and nests these lesser people escaped notice except from prying oölogical eyes. The discovery of these crows caused the most surprise, as bringing into association the two reverses—herons nest in communities, but are otherwise more or less solitary, while crows do not nest in colonies, but otherwise are more or less gregarious.

Since writing the above I have visited the three colonies for 1903, with the following results: Huron River, 5 nests; River Rouge, 1 nest; Clarkston, 19 nests, exclusive of 5 in the old herony. Some interesting data was secured for future use.

BUBO VIRGINIANUS IN MICHIGAN.

EDWARD ARNOLD.

The Great Horned Owl (*Bubo virginianus*) is quite common throughout the state at all seasons. My observations cover principally Calhoun and Kalamazoo Counties where the bird is very common. The female is larger than the male, more powerful and according to my observations much more vicious in the defence of its home and young.

This species is partial to river bottom land and prefers to nest close to running streams or water. Although hollow trees are fairly abundant where I hunted, the bird prefers to nest outside and lays its eggs in old nests of red-shouldered and red-tailed hawks, sometimes taking possession of crows nests. Have found nests with but one egg badly incubated, once with one egg only addled. Two eggs are the usual set and twice I have found nests with three young.

A sharp rap on the tree trunk will usually scare the parent off the eggs or young and unless the eggs are almost hatched or the young just out of the shell the parents keep a respectable distance away. Twice I have been struck on the back by the enraged female, each time the nest contained young just hatched. The birds observed by me usually commence laying the latter part of February.

This bird is known by hunters and farmers as the cat and hoot owl, and is the most destructive and powerful of its family in North America. It destroys poultry, rabbits, ducks (wild and domestic) crows, skunks, rats, mice, moles, flickers, red-headed woodpeckers, bob-whites, grouse, woodcock, squirrels, etc., in fact, it is king of the woods and takes its tribute night and day. In hunting for its nest I have often been guarded to the vicinity by the noise of a flock of crows chasing it. It takes tribute of the crow at night and that bird recognizes it as its enemy and pursues it whenever it makes its appearance in the day time. I have seen as many as forty crows following it in the woods from tree to tree.

When the nest contains young it is usually well stocked with various parts of birds and beasts, usually the hind quarters, generally the head is eaten first. One nest I found with young early in April, 1902, had the wing of a crow, the back of a white buck, several hind quarters of rats and mice, and the hind part of a rabbit—several pounds in all. From my journal I take the following notes:

These birds are constant residents where ever found, and if the woods is tolerably large can usually be found in some tree the year around close to the nesting tree—the male usually occupies a hollow tree during the day is unsociable, and two pairs rarely occupy the same woods. Both birds are rather noisy during January, February and March, the nesting period.

I have shot horned owls the year around, and have never found one in poor condition, which is proof that it is able to procure abundance of food at all times. Incubation lasts about four weeks, and both birds sit on the eggs, the female the greater portion of the time. On March 2nd, 1895, in company with Mr. Corwin, of Vicksburg, I found a nest in a tamarack tree near Barton Lake, about three miles southwest of Vicksburg, Kalamazoo County. The nest was a large one placed about fifty feet up. The female left nest as I struck the tree with my spurs. Set consisted of two eggs incubated about

one-fourth. Female flew away and made no noise. Saw two males flying in the direction of the nest shortly before I found it. Time, 4 p. m. Weather, clear.

March 5th, 1895, Calhoun County, about two miles northwest of Penfield, I took two almost fresh eggs from a nest in a tamarack tree in a swamp. Nest large and conspicuous, and not more than forty feet up. Female left nest as soon as I struck the tree. There was snow on the edge of the nest, which was flat, made of large and small sticks and lined with a few feathers from the breast of the female. Saw but one of the birds. Time, 10.30 a. m., was alone.

March 28th, 1895, Kalamazoo County. Nest in large white oak sixty feet up—an old nest of the red-shoulder hawk. Season of 1894, took two young *Buteos* from it. The female *Bubo* flew from it as I struck the tree. Nest made of sticks and twigs lined with leaves, contained two eggs almost fresh. Saw both birds in the vicinity of the nest; believe they were the same pair I robbed March 2nd, 1895. Nest was across the lake from old one on high ground, the woods was medium sized. The eggs were about the same size as the former set. A late nesting.

February 27th, 1896, Calhoun County. Took two fresh eggs from same nest as I took set March 5th, 1895, in tamarack tree, two miles from Penfield. The eggs were warm, but I did not see the parent. Nest well lined with feathers from parent's breast, feathers also clung to the surrounding branches and could be plainly seen from the ground. Parents noisy in wood while I climbed to the nest. Size of eggs 2.24x1.92 and 2.27x1.91.

March 24th, 1896. Two and one-half miles east of Penfield, close to river on bottom land. Eggs laid on bark and dust in a large broken top of a soft maple, thirty feet up. Nest contained one addled egg and one young bird scantily feathered. Besides the lining of feathers the nest contained the hind quarters of a rabbit. A large male bird flew around the adjoining limbs uttering their peculiar *Boo-hoo-o-o*. The eggs were dark cream in color and quite glossy. The female wore a very dark plumage.

March 25th, 1896, near Scott's, Kalamazoo County, in a swamp close to a trout brook, near to a railroad track. Nest fifty feet from ground in the top of a yellow birch. The nest contained three birds, all different sizes, one about four days old, one ten days and the other about two weeks. The two largest of the young snapped their bills at me. The female also flew around snapping her bills. Weather, very cold.

March 27th, 1896, Pine Lake, Ingham County. Nest sixty feet up in a tamarack, very flimsy and shallow, made mostly of tamarack and other twigs. Female left nest upon my approach. Down was hanging from nest and adjacent limbs. Contained one addled egg.

February 17th, 1897. Nest in a dead tamarack, near Vicksburg, Kalamazoo County. Forty-five feet up contained one fresh egg. Nest made of sticks, no lining. The single egg was heavily stained, I visited the nest several times, after parent had apparently deserted the nest.

April 8th, 1897, took two eggs, incubated about ten days; 55 feet up in an old hawk's nest in a soft maple tree two and one-half miles east of Scott, Kalamazoo. Parents noisy—very late for their eggs.

This year I went March 1st, with a friend after the horned owls. Scared one out of an old sycamore tree; but it contained no eggs. Scared another off of an old nest in a beech tree, it also was empty.

On March 4th, in company with Mr. Corwin, visited nest near Vicksburg. Nest close to stream, situated in crotch of large white oak, sixty feet up. The two eggs were incubated about two weeks. The nest was very old. The female left before we landed the boat about fifty feet away. I had a hard climb after the eggs as the tree was covered with old bark very thick and brittle. After the female left nest a lot of crows pursued her around the woods, chasing her back to her nest as I was putting eggs in a cigar box preparing to come back to *terra-firma*.

From this it will be seen that so far as my observations go this bird invariably chooses open nests in trees, lays from one to three eggs, usually two. Is partial to swamp and bottom land and loves to be near to water.

Battle Creek, Mich., March 7, 1903.

REMARKS ON THE RECENT CAPTURE OF A KIRTLAND'S WARBLER IN MICHIGAN.

ADOLPHE B. COVERT.

On the 15th day of June, 1903, Mr. Earl Frothingham, an assistant in the Museum of the University of Michigan, added another specimen of the rare warbler *D. Kirtlandi* to the growing list of that bird in the middle west, making the 23rd specimen recorded and the 7th for the State of Michigan. This last specimen, a male, was taken in the Western part of Oscoda County near the boundary line of Crawford County. This section of country is a part of the Canadian Life Zone of Lower Michigan. Mr. Frothingham tells me that he saw and could have easily taken three more specimens, that they were in full song and every indication pointed that they were nesting close by. In speaking of its song, habits, etc., Mr. Frothingham gives me the following verbal account:

The immediate section of the country where we observed these birds was covered with tall scattering Jack Pines interspersed with Poplars and low underbrush consisting of Blackberries, wild Raspberries, briars, oaks, fallen trees, decaying logs, and tall sentinel like dead pines, blackened and seared by forest fires. In many places could be found a luxuriant growth of sweet ferns, wintergreens, and a rank growth of grass, in others, the grass was stunted and scattering. Small Norway Pines growing in clumps, dead trees, still standing stripped of their bark and limbs and whitened by the elements, many small swamp like spots covered with spagnum-moss, and a low growth of cedar trees. Level tracts of country consisting of a light sandy soil, struggling weeds, and a weak growth of grass, the whole sparsely covered with stunted Norway Pines. This last being the characteristic "Norway Plains" of the pine region of Michigan.

In this varied tangled growth Mr. Frothingham found *D. Kirtlandi* in company with the following birds: Black-throated Green Warbler, Red Start, Juncos feeding young, Hermit Thrushes in full song, Black-throated Blue Warblers, Nashville Warblers, Solitary Vireos, Black and White Creep-

ing Warblers, Three-toed Woodpeckers, Chestnut Sided Warblers, Yellow-bellied Sapsuckers, and Maryland Yellow-throats. Spruce Grouse followed by their young trailed over the spagnumm moss and Belted Kingfishers sounded their rattle from the banks of the Au Sable. Mr. Frothingham states that the bird reminded him very much of the Yellow-rumped Warbler in action, moving sideways on the smaller limbs and keeping up a jerking motion of its tail with a constant chipping as if concerned about its nest—then with a sudden motion it would descend to the ground only to reappear through the tangled mass of ferns and under-brush—perch himself on some blackened stubb, and with head thrown back pour fourth a loud clear song of liquid musical notes, the tones being very full. Mr. Frothingham likened this song to that of the Maryland Yellow-throat, saying that both birds were present and in full song, but that a difference was easily detected and that he never mistook them. He also speaks of one instance wherein he had discovered a nest containing young of the White-throated sparrow, the mother sparrow was very solicitous in uttering her protests and was soon joined by a varied company in which was included a *D Kirtlandi* who became very much excited and with jerking tail and loud excited chips, uttered rapidly, attempted to drive the intruder away. This record adds one more link to verify my prediction of some years ago that *Kirtlandi* would be found nesting in the Canadian Zone of Lower Michigan. At Ann Arbor, on May 15th, 1875, I took my first specimen of Kirtlands Warbler, the condition of this bird's ovaries showed that the eggs would have been laid in about two weeks. If the bird had traveled at the rate of forty miles a day and had taken a direct line north about four days would have been consumed in making the journey to the Canadian Zone of Lower Michigan which is about 160 miles *direct* north from this point. It is a well known fact that birds do not travel in direct lines, but have well established pathways that usually follow river valleys. My studies go to show that all of the specimens of *Kirtlandi* (with one exception—that of Battle Creek) taken in the state entered from the basin of old Lake Erie (or as Mr. Frank Leverett terms it, Lake Maumee), coming up the valley of the Huron river, crossing in Livingston county to the headwaters of the river Saginaw, thence down the valley of that river to the mouth of the Tittabawasse river, ascending the valley of that river to Lakes Houghton and Higgins. These Lakes being in the southern portion of the Canadian Zone. From Houghton Lake the birds enter the valley of the headwaters of the south branch of the Au Sable, preceding down the valley of that river until they reach the main stream. Here a portion find their summer home, others pass on up the valley of the Au Sable to its headwaters, crossing here to the valley of the Indian river in Otsego county, descending the valley of the Indian river through the Carolinian Zone of the northmost point of Lower Michigan, crossing the Straits of Mackinaw to the Canadian Zone of the Upper Peninsular. Let us take my first specimen, she was passing this point (Ann Arbor), May 15th the condition of her ovaries showed that in about fourteen days her eggs must be laid, to follow the route of these river valleys she must travel about 280 miles. If she traveled at the rate of forty miles per day seven days would be consumed in making the journey, she would arrive at her nesting place May 22. Now give her seven days to build her nest and it brings the date May 29, four days are consumed in laying the eggs, this brings our date

June 2nd—fourteen days are passed in brooding the eggs—this brings our date June 17th. During the brooding time all *field* naturalists know that the males of all birds are beside themselves with joy and wild with song, so much so, that it seems at times as if their little breasts must burst with gladness; is it the knowledge that reproduction of their kind is about to take place? We cannot tell, but we can think. The female sets close now, hardly leaving the nest to feed.

Mr. Frothingham was on the ground June 15th, he saw no female, the males were wild with song, singing everywhere. He tells me, "it seems as if a dozen were singing at a time," he saw and thoroughly recognized three and secured the fourth. He is an accurate observer, a museum worker and a fine field naturalist, able to name three-fourths of our Michigan warblers by their songs and call notes. When I asked him why he did not secure more specimens, he answered like a true gentleman, "I did not feel justified in killing more than was absolutely necessary to identify the species." I would to heaven there were more like him that we could say it of all.

My studies prove to me that these birds are mated before leaving their winter homes. We know that the males precede the females by about two weeks, passing this point May 1st; the females pass here May 15th. In the case of every specimen taken the ovaries have been examined and were fertile, proving that copulation must have taken place before the migrations commenced. Accurate observations with domestic birds teach us that eggs to prove fertile must be impregnated at *least* two weeks before being laid. Closer attention should be given these points. What we need and want is more accurate field workers, not closet specia-makers. There are too many of that kind at work now and it is hard to get birds enough to go around so that they can all have one to name.

Ann Arbor, Mich.



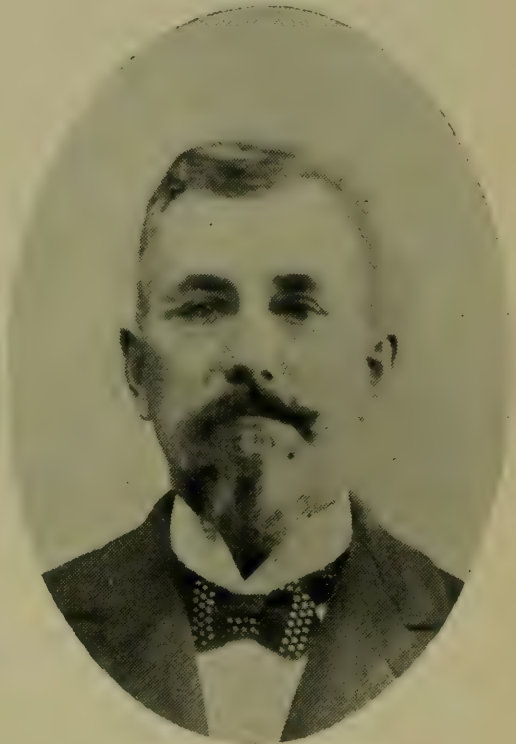
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PLYMOUTH

MICHIGAN ORNITHOLOGISTS.

FIRST SERIES.

GENERAL NOTES.

We are pleased to welcome to our membership roll no less an ornithologist than Otto Widman, of Old Orchard, Mo. Mr. Widman spent from July 9-23, 1901, at Wequetonsing, Emmet County, Mich., during which time he made observations on the birds of that vicinity, the results of which were published in the "Auk" Vol. XIX. No. 3.

Dr. P. E. Moody, Mr. Bert Stowell and A. W. Blain, Jr., spent a pleasant week among the birds of northern Oakland County. Starting on May 21st with horse, wagon and boat, they traveled many miles, working the lakes, woods and fields in quest of bird-notes and specimens. The trip may prove the nucleus of a future paper.

Mr. J. J. Ricks completed his post-graduate course at the U. of M. June, 1903. He is to accept a position with the legal department of the Illinois Central at Chicago.

Prof. Chas. C. Adams is to give two courses in zoology at the University of Michigan Summer School.

Maj. A. H. Boies (Engineer Corps U. S. A.) of Hudson, Mich., one of the oldest ornithologists of the state, is situated temporarily at Amherstburg, Ontario. He reports little time for bird study at present, but expects to send in notes of interest in the near future.

Mr. Chas. F. Freiburger, Jr., is sailing on the U. S. Lighthouse tender "Marigold" among the islands of Lake Superior. We presume he shall find much of interest in the bird line, especially with the Gulls and Terns which nest so abundantly on some of the islands.

We are sorry to learn of the recent sale of the Oölogical collection of Mr. Wm. A. Davison, of Detroit, to E. H. Short, of Rochester, N. Y. It is to be regretted that this fine collection could not have been procured by some museum in the state rather than to have had it pass into the hands of a dealer.

Among other interesting articles in the "Wilson Bulletin" for March is one by Mr. B. H. Swales entitled "Notes on the Winter Birds of Wayne County, Mich." The Wilson Ornithological Chapter of the Agassiz Association, by which the "Wilson Bulletin" has been published, has changed its name to the Wilson Ornithological Club.

From a recent letter from a former editor of this journal we quote as follows: I am just sitting up again from an attack of pneumonia and have missed all the wonted pleasure I have had with the birds. My physician tells me I must go west at once, and I expect to start soon for Casperopolis, Washington. I will take Coues and Ridgway and other friends among the books and study the birds there if I am able.

Yours fraternally,

Manchester, Mich.

L. WHITNEY WATKINS.

Mr. Norman A. Wood, of the U. of M. Museum, will leave June 29 for Oscoda County in search of the Kirtland's Warbler.

Bulletin

OF THE

Michigan Ornithological Club

A QUARTERLY MAGAZINE DEVOTED TO THE ORNITHOLOGY
OF THE GREAT LAKE REGION.

ALEXANDER W. BLAIN, JR.

EDITOR.

131 Elmwood Avenue, - Detroit, Mich.

ASSOCIATES:

J. CLAIRE WOOD, - - - Detroit, Mich.

ADOLPHE B. COVERT, - - - Ann Arbor, Mich.

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EDITORIAL

While yet young the Club is accomplishing good work—the meetings have been most interesting and profitable to those present, and much important work is now well under way.

It is a regrettable fact that most ornithological journals cannot appear on time. This fault is exemplified by the last and present issues of this journal. The habitual late appearance as has been noted before ("The Auk," XVIII., pp. 126) is in most cases due to the contributors who neglect getting their MMS. in on time—thus, our apology, is due in the case of this issue. We shall have to insist upon receiving MMS. intended for publication not later than the 15th of the month preceeding publication. In all cases contributors should write *one side of the paper only* and as plainly as possible—observance of these rules will save the editor much unnecessary labor. Scientific names are not always of extreme importance but it is best to insert same in all contributions so that no chance of doubt will exist as to what species (or sub-species) the notes pertain.

The editor would request that members send in notes at all times. Some may not prove suitable for publication but all will be thankfully received.

In this number we publish half-tones of four prominent bird-men of

this state—this feature will be continued in future issues. Many fine illustrations of birds, nests and eggs shall also be utilized in future issues as well as a series of photographs of the museums of the state at which are centered the bird collections—the first of the latter series is given as a frontispiece to this number. We cannot say with any certainty what articles will appear in the September issue but promise many things of interest to bird-students. Among the articles which we shall publish in the near future will be a series of papers on the hawks and owls of this state by Edward Arnold. The student of geographical distribution will find much of interest in an article by Adolphe B. Covert on the Life Zones of Michigan and one by Chas. C. Adams on the distribution of the Kirtland Warbler. Short interesting notes will form a prominent feature of every issue.

Two interesting and instructive papers were given under the auspices of the Club on May 20th at the Detroit Museum of Art. The first was on the "Interpretations of the Weather Maps," by Edgar Nelson Transeau, of the University of Michigan. In this paper Mr. Transeau showed how weather effected the migrations of birds and consequently how important it was to the student to study the weather maps as a means of keeping in touch with the weather. This was followed by a paper by Wilbur H. Grant, also of the U. of M., on the "Effect of Weather Upon Migration." Mr. Grant was apparently familiar with the works of Brewster, Cooke, Herr Gätke and others on migration, but he used the data gathered by members of the Club at Ann Arbor this Spring to follow out his theories.

It is to be regretted that the night was so disagreeable for the papers would have proved most profitable to many who might otherwise have attended as well as the many members and visitors who did attend.

The Treasurer desires to call the attention of members who are in arrears for dues. The cost of publishing the *Bulletin* is much greater than is most generally supposed and the Club needs all available funds. The constitution provides that all members three months in arrears for dues to be dropped from the roll. Mr. Swales address is now 191 Kirby Ave., East Detroit. Kindly attend to this matter at once.

We learn from the "U. of M. News-Letter" that "the museum of the University of Michigan has recently procured a very valuable collection of bird skins, most of which have been collected in southwestern Michigan. This collection was made by Dr. Morris W. Gibbs, of Kalamazoo, Mich., formerly of the University. Dr. Gibbs has published many papers on Michigan birds, and for this reason his collection is of especial historic value. The skins are in excellent condition, and fully supplied with data regarding locality and date of capture. The collection numbers about 225 skins, and gives a good idea of the bird life of the southwestern part of the state.

"The University museum stands in great need of similar collections from other sections, especially from the northern part of the state, where so little bird work has been done. The birds of the southeastern part of the state are also poorly represented. It is hoped that friends of the University will aid in making the collections in the museum representative of the entire state."

RECENT LITERATURE.

A HANDBOOK OF THE BIRDS OF THE UNITED STATES AND CANADA. By Thomas Nuttall. New Revised and Annotated Edition. By Montague Chamberlain. With additions and one hundred and ten illustrations in color. Boston: Little, Brown & Co., 1903. 12 mo. Pages xlv.+473+ix.+431. Col. pll 20 numerous text cuts. Price, \$3.00.

This book should find a place in the library of every student of birds in the lake region. The present work is a reprint of the second edition (1896) published in two volumes at \$7.50 net. The text is exceedingly interesting, and of especial historical interest owing to the relation of the original (1832) edition to American Ornithology. The work treats of the birds east of the Mississippi, except in such cases where the bird is common to both sections of the country. The illustrations are for most parts good—the colored ones are at least interesting as they are taken to a great extent from Auduborn and Wilson. A biography of its author would have added much to the interest of this volume.

A. W. B., JR.

CASSINIA. A Bird Annual. Proceedings of the Delaware Valley Ornithological Club of Philadelphia. No. IV., 1902. Roy, 8 vo. pp. 66. Feb., 1903. Price, fifty cents.

The fourth number of the "Proceedings" and the second number under the title "Cassinia" (after the well known ornithologist) of this prominent bird-club, is full of interesting and good sound articles. With no less an editor than Witmer Stone the contents of this production speaks for itself: "Edward Harris" (with portrait); G. S. Morris, "Henslow's Bunting in New Jersey"; S. N. Roads, "The Unusual Flight of White Herons in 1902"; W. B. Evans, "Notes on the Germantown Grackle Roost"; A. C. Emlen, "The Heart of the New Jersey Pine Barrens"; H. L. Coggins, "Report on the Spring Migration, 1902"; Witmer Stone, "Elliot Coues on the Death of John Cassin." Besides the ornithological papers an abstract of club meetings for 1902 is given, also "Bird Club Notes" and a list of the members and officers for 1903.

A. W. B., JR.

A HAND BOOK OF THE DETROIT MUSEUM OF ART (ILLUSTRATED). Detroit, Michigan, 1902.

This is a beautifully illustrated volume of eighty-seven pages, giving a brief history of the Museum and its collections. It is "issued in the hope that the people of Detroit may become better acquainted with this institution and its increasing educational value to the public," and we feel sure that its mission has been fulfilled by all who have seen the present volume.

The natural history collections, as well as many of the other collections, have had a warm friend in the person of Mr. Frederick Stearns, of Detroit, who has spent unlimited time and money in building up and presenting to the Museum such collections as he has gathered in his travels to many corners of the world.

The Museum is of particular interest to bird students owing to its fine ornithological and Oölogical collections. Most of the meetings of the Michigan Ornithological Club have been held within its walls.

The Museum is soon to have a large addition built on the rear which will give still more room to the bird collections. The Museum throughout reflects the labor spent by its able director—A. H. Griffith.

A. W. B., JR.

Wild Birds in City Parks. By Herbert E. and Alice Hall Walters. A. W. Mumford, Chicago, 1903. Paper, pp. 40. Price, 25 cents.

Nothing in the way of bird lore that has found its way to my desk has pleased me more than this little book. In my boyhood days what would I have given for a volume of this kind? I find more practical and useful information in it than in any other book of its kind and size that I have ever before seen. It deals with one hundred birds found in a Chicago park and will be found of much value to students, first as an aid to identification, because of the general and particular hints; second, in chapter on how to take notes a great many of our older observers could find useful hints. It is a field work of pocket size which means a great deal. I should like to see this book introduced into our public schools. A. B. C.

THE STORY OF THE BIRD LOVER. By William Earl Dodge Scott. New York: 1903. The Outlook Company, xi.+372 pages; 1 plate. Price. \$1.50.

Am. Ornithology, Vol. III., No. 3-6, March, June, 1903.

Atlantic Slope Naturalist, Vol. I, No. 1, 2, March-April, May-June, 1903.

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Recreation, Vol, XVIII., No. 3, 4, 5. April-June, 1903.

Science (N. S) Vol.. XVII., No. 429-441, 1903.

Wilson Bulletin (No. 42) Vol. X., No. 1, March, 1903.

Rev. W. Leon Dawson, of Columbus, Ohio, has in the course of preparation a work which will be of especial interest to all students in the Great Lake region. The work of 500 pages will be beautifully illustrated by 80 colored plates and 200 half tones of birds, and will be exclusively a subscription book. We look forward with pleasant anticipations for "Dawson's Birds of Ohio."

Messrs. Dana Estes & Co. announce that the fifth revised edition of Dr. Elliot Coues' "Key to North American Birds" will be ready some time this fall. The manuscript was completed shortly before the author's death. The new edition will be beautifully illustrated and will be published in two volumes at \$10.

NOTES FROM THE FIELD AND MUSEUM.

KING RAIL AT ST. CLAIR COUNTY IN WINTER.

Early in December, 1902, I received, for mounting, a fine adult male King Rail (*Rallus elegans*) from John W. Benline, of Port Huron, Mich. The bird was in perfect condition, but upon close examination the tarsus of one leg proved to have been broken, but it had successfully healed up. Becoming interested in this specimen I wrote regarding the capture to Mr. Benline, who replied that he caught the Rail November 27th, six miles west of Port Huron in low swampy ground, but on December 6th the bird escaped from him and he had to shoot to get it again.

Mr. Benline further says that on December 13th he saw more King Rail tracks on snow covered ice one-half mile north of where this one was caught.

Detroit, Mich.

LOUIS J. EPPINGER.

SMALL-BILLED WATER-THRUSH IN WAYNE COUNTY.

It was with much pleasure I located on May 14th, 1898, in the wood known as the Chestnut Ridge, Wayne County, Mich., a nest, containing five eggs, of the Small-billed Water-thrush (*Seiurus noveboracensis*). The nest was close to and partly under the large trunk of a fallen tree, on slightly elevated ground, the situation apparently being well selected to avoid any dampness or moisture to the nest from the water which covered the ground in its lowest places to within a short distance of the bird's nesting site. The condition of the eggs considerably surprised me—the date being early—as they were all heavily incubated and it was only with much difficulty and care they were saved. Their ground is creamy white, blotched and spotted at larger ends with dark brown graduating into light lilac tints. The nest is made entirely of fine and coarse grasses, the former as the lining; oak leaves serving as a foundation. The bird has the usual typical markings, throat and under parts white with pronounced sulphur tint, streaked with dark greenish brown, same shade being the general coloration of the back and wings. It measures, over all, six inches. Length of bill from tip to base one-half inch. Report had reached me that the Water-thrush had been seen in the Chestnut Ridge but was not certain that the identity of the bird by my informant was assured. I therefore decided to cover the question of identification thoroughly by securing the bird, which proved to be the female. The bird left its nest exhibiting the usual symptoms of alarm, with drooping and fluttering wings, soon returned, and while leaving the nest a second time was taken. I have, since the date of finding this nest, searched diligently for the bird, not only in the Chestnut Ridge, but other suitable places as well, and have failed utterly to again see one. My conclusion is that the bird is a somewhat rare one in this vicinity, and therefore but seldom met with.

Detroit, Mich.

EDWIN G. MUMMERY.

A TWICE USED NEST.

This spring (1903) a pair of Robins took up their abode on a board under the eaves of our barn at Draton Planes. As circumstances proved most favorable the brood hatched and were soon able to fly. I was greatly sur-

prised to find on passing the nest June 12th, to see a female Blue-bird (*Sialia sialis*) sitting on the nest. Upon examination I found that the nest contained four eggs of the latter species.

Pontiac, Mich.

BERT STOWELL.

BREEDING OF THE YELLOW-BREASTED CHAT IN WAYNE COUNTY.

On May 14th, 1903, Mr. Walter C. Wood and myself were at Grosse Pointe on a collecting trip, and among the many things noted was a Yellow-breasted Chat (*Icteria virens*), the latter being observed by Mr. Wood.

On May 30th Mr. J. Claire Wood, Mr. W. C. Wood and myself were in the same territory, and in passing from the timber into a bushland I flushed a chat from a small clump of elm sprouts, and upon investigation found the carefully concealed nest situated about one and one-fourth feet above the ground and almost entirely surrounded by the sprouts. The nest was composed of weed stalks, dead leaves and lined with fine root fibres. The eggs, four in number, were partially incubated. The ground color was white and was spotted with brown—being most heavily marked at the larger end. This I understand is the second recorded set taken in Wayne County.

Detroit, Mich.

CHAS. E. WISNER.

A FEW NOTES ON OUR WINTER BIRDS, 1902-3.

Snowy Owls have not been seen in this part of the state during the past winter. A few Crows remained all winter. Pine Siskins and Snow Buntings have been entirely absent. A small flock of Red-polls were seen. Red-headed Woodpeckers and Flickers were not observed, but a limited number of Hairy and Downy Woodpeckers were with us all winter.

Tree Sparrows, Crossbills and Purple Finches were entirely absent while the Black-capped Titmouse and White-breasted Nuthatch were quite abundant. Two Long-eared, one Short eared, and a few Screech Owls were observed. A Barred Owl, the last of his race left in this neighborhood that I know of, whose solemn hoot at the dead hour of night seems to be calling for his lost mate and companions who will never return.

The above notes compared with my notes on winter birds for a number of years show that some of our winter birds, such as the Snow-bunting, Tree Sparrow, Red-poll and Purple-finch, are growing less abundant. Whether this is caused by decreasing numbers in their northern home or because they have forsaken the shores of Michigan, I am unable to say, but they are certainly growing less abundant in our state.

Plymouth, Mich.

JAMES B. PURDY.

THE GRACKLES CHANGE IN NESTING HABIT.

In my experience all Grackles select cavities in which to rear their young when convenient hollows are obtainable. Thirty years ago there were many dead stubs with suitable cavities in the suburbs of my native city—Kalamazoo, Mich. These hollows, mostly in old tamaracks were selected by the bronzed Grackles for their nesting, and the birds only changed their quarters when the stubs were uprooted and the land cleared, then the gregarious black-birds moved into town and mainly took up their residence among the ever-

greens. The eggs were often deposited in the regulation nest built in a hollow, but it was not unusual to find eggs laid on the bare wood of the hollow, and I have found many deposited in this manner. It is not unusual for a species to change its habit in nesting and I have found marked variation from the normal in over thirty species, and a regular acceptance of the change in several species. For instance—the barn swallow, cave swallow, phoebe and chimney swift have all adopted the means at hand so-to-speak as furnished by man, and have radically changed their nesting sites. The changes resulting from the effects of civilization are marked in many birds and a book might be written on the subject.

Kalamazoo, Mich.

MORRIS GIBBS, M. D.

A SET OF FOUR EGGS OF THE MOURNING DOVE.

Speaking of the eggs of the Mourning Dove (*Zenaidura macroura*) Davie (Nest and Eggs of N. A. Birds p. 188) says: "Two white eggs are laid, there are exceptional cases, however, where more are deposited. Mr. Morris has a set of three. Mr. L. Jones, of Grenell, Iowa, writes that he has a set of four. Mr. P. W. Smith, of Greenville, Ill., records several sets of three and four, two sets taken from old robin nests." From this it would seem that four is an unusual number. It was very good fortune to find a set of this number in Oakland County on May 13, 1899. The nest was seven feet from the ground on the horizontal branch of an apple tree. I believe this set was the compliment of a single bird, as all in the set were under the same stage of incubation—all being fresh.

Detroit, Mich.

FRED C. HUBEL.

A BITTERN EPISODE.

It happened May 3rd, 1902, in Springfield Township, Oakland County, and in a meadow bordering a large marsh of rushes. Our editor was on his way to a Flicker's nest, some fifteen feet up a willow stub, and our secretary was seated upon the railroad track viewing proceedings with an expression akin to sarcasm. I was beside the latter, but as indications suggested a probability of the Flicker ascension being accomplished in about five hours, I allowed my gaze to wander. An incongruity to harmony in scenic affect arrested my attention. It was a Bittern standing motionless in the long meadow grass. Had he been in the marsh I would have let him stand, but there was something unusual in his position, and I proceeded to investigate. Not a muscle did he move until I was within some thirty feet, when he suddenly lowered his head in my direction with neck extended and mandibles apart and uttered a distinct hissing noise. He held his ground until only a few paces separated us, then took wing and retired into the marsh. I made directly for the vicinity he vacated, and what was half anticipated proved a reality. So skillfully concealed was madam that her head and neck were invisible, and only a small patch of her back was without covering. A glance showed conclusively the artistic work of her mate, for she could not have executed the network of grass blades that lay close about her form. I tapped her on the back and she instantly stood up to be grasped by legs and neck. Seated upon the ground and partly concealed behind the flapping wings of a large bird I doubtless presented a spectacle of interest, anyhow, great com-

motion was now evident in ornithological circles. Over the fence came our secretary, followed by several other local celebrities, while our editor favored me with one look of wonder and his climbers slipped. He was soon afoot, however, and coming at a limping trot spitting out chunks of rotten wood, teeth and language. In the absence of the president our secretary called the meeting to order, and it was resolved that the capture of a Bittern upon her nest was somewhat unusual, but the most remarkable feature was yet to come. After due examination of the slight hollow lined with bits of dead rushes that served as a nest, I replaced madam and held her a few moments, then hastily retreated several feet, but she did not move. Then the party retired to the track and discussed this new phase, while our editor went back to the stub. All this time a sharp lookout was kept upon the spot that concealed madam, but still she sat. Bye and bye our editor reached the Flicker's nest and applied an optic which was greeted by a joyous yell from within. Convinced that so much juvenile clamor did not come from fresh eggs he slid down in disgust and we started for other territory, but with an eye on the meadow to the very last, and during that time madam *Botaurus Lentiginosus* had not abandoned her domicile.

Detroit, Mich.

J. CLAIRE WOOD.

MICHIGAN ACADEMY OF SCIENCE.

The ninth annual meeting of the Michigan Academy of Science was held at Ann Arbor on March 26, 27, 28. The following officers were elected for the ensuing year: President, Dr. Frederick C. Newcombe, University of Michigan; Secretary, Dr. James B. Pollock, University of Michigan; Treasurer, H. L. Clark, Olivet College; Librarian, Dr. G. P. Burns, University of Michigan. Vice-Presidents for the different sections; Botany, Professor B. O. Longyear, Michigan Agricultural College; Agriculture, Professor W. J. Beal, Michigan Agricultural College; Geology and Geography, Professor Israel C. Russell, University of Michigan; Zoölogy, Professor R. H. Petit, Michigan Agricultural College; Science Teaching, Professor W. H. Sherzer, Michigan State Normal College.

NOTES ON THE WARBLERS AT ANN ARBOR.

This has been a poor year for collecting, as the migrants have passed north with short stops here and there. I was in the field early, late and often, and I have seen very few of the migrating birds (that is few in number). I can account for it in two ways: First, that they passed here mostly at night. Second, that they chose some other route this spring. The warblers especially were scarce, as shown by the following list of species observed at Ann Arbor, Washtenaw County, during the spring of 1903:

Black and White Warbler, April 16—common.

Myrtle Warbler, April 28—6 seen.

Yellow Warbler, April 28—common.

Black-thro. Green Warbler, May 1—2 seen.

Palm Warbler, May 2—1 seen.

Black-thro. Blue Warbler, May 7—5 seen.

Redstart, May 5—common.

Maryland Yellow-throat, May 7—common

Parula, Warbler, May 7—3 seen.
 Blue Goldenwing, Warbler, May 8—4 seen.
 Prairie Warbler, May 9—2 seen.
 Tennessee Warbler, May 9—1 seen.
 Nashville Warbler, May 9—2 seen.
 Chestnut-sided Warbler, May 10—6 seen.
 Bay-breasted Warbler, May 10—2 seen.
 Blackburnian Warbler, May 12—4 seen.
 Cerulean Warbler, May 12—3 seen.
 Magnolia Warbler, May 13—5 seen.
 Canadian Warbler, May 14—3 seen.
 Black Poll Warbler, May 17—5 seen.
 Wilson's Black Cap Warbler, May 23—2 seen.

I should be pleased to hear from the members of the club in regard to the number of species (of warblers) observed this season with data in regard to the relative abundance.

Ann Arbor, Mich.

NORMAN A. WOOD.

THE PROTHONOTARY WARBLER IN MICHIGAN.

My first record of *Protonotaria citrea* in Michigan is that of a male at Cadillac, Wexford County, May 7th, 1882. I did not again meet this bird until May 8th, 1896, when Mr. Norman A. Wood and I made a trip "Down in Egypt," in the township of Lyons, Oakland County. In this vast swamp we secured a pair, male and female, with their nest and eggs.

Again on May 9th, 1903, in company with Mr. Alexander W. Blain, Jr., we observed a male in full song, but did not secure him, at Grosse Pointe, Wayne County. This bird is a summer resident of the Carolinian Zone of the state.

Ann Arbor, Mich.

ADOLPHE B. COVERT.

OUR PRESENT KNOWLEDGE OF THE DISTRIBUTION OF THE YELLOW-BREASTED CHAT IN MICHIGAN.

Our present knowledge of the distribution of the Chat (*Icteria virens*) in this state is very limited, much more so than it should be. The late Dr. H. A. Atkins, of Locke, Ingham County, reported it there at various times, and his records must be considered good. Jerome Trombly, of Petersburg, Monroe County, says common and nested here prior to 1881. Maj. A. H. Boies records one specimen from Lenawee County (no date). Dr. Robt. H. Wolcott and the writer found them very common in May, 1893, at various places, and secured a fine series of specimens; these were taken about four miles south of Ann Arbor, Washtenaw County. Again in the same locality, in company with Prof. Dean C. Worcester, on May 4th, 1895, I secured a pair (male and female), which were nesting. Mr. Wm. A. Davison found them breeding in Wayne County near Detroit. Our latest record is that of Mr. Chas. Wisner at Grosse Pointe, Wayne County.

These birds must be considered as belonging to the Carolinian Life Zone of Michigan.

Ann Arbor, Mich.

ADOLPHE B. COVERT.

ANOTHER KIRTLAND'S WARBLER FROM MICHIGAN.

On the 15th of June, 1903, while on a fishing trip on the Au Sable river, in Oscoda County, Mr. Thomas Gale and I secured a male specimen of Kirtland's Warbler (*Dendroica kirtlandi* Baird). My attention had been attracted earlier in the day by a strange bird-song, which I found to proceed from a warbler with which I was unfamiliar. At this time I saw two of the birds, apparently both males, but was unable to take either of them. During the morning we drove with Mr. J. A. Parmalee to the north branch of the Au Sable in Crawford County, a distance of seven miles. We heard the song at several places along the road, and at last saw one of the birds singing on a pine stump in a slashing close to the border of Crawford County. Mr. Gale shot the bird, which proved to be a male. This is the only summer specimen recorded from Michigan. The skin is now in the collection of the University of Michigan Museum.

EARL H. FROTHINGHAM.

Museum, University of Michigan, Ann Arbor, Mich.

MINUTES OF CLUB MEETINGS.

The annual meeting was held March 27 at Ann Arbor in the University of Michigan Museum. About thirty members were present, together with a number of visitors. Business meeting called by Pres. Covert at 11 a. m. Mr. Blain spoke on the aim and purpose of the BULLETIN. A general discussion followed as to the cost and plans for our journal.

P. M. Session called at 1.30. The first paper was by Adolphe B. Covert on "The Life Zones of Michigan." This was illustrated by a bas-relief map of the state showing the various zones in reference to their bird-faunas. Discussion followed by Prof. Walter B. Barrows.

Chas. C. Adams read a paper entitled "Notes on the Origin and Fauna of Lower Michigan." This was illustrated by many maps. A general discussion followed on various bird subjects, which took up most of the afternoon. In the meantime a short recess was taken to allow the committee on Geological Distribution to meet. The committee report was given by Mr. Adams (see page 29, March issue).

April 23rd.—The meeting was held at the Detroit Museum of Art. Owing to the weather the meeting adjourned as a quorum was not present.

May 1.—Meeting held at the Detroit Museum of Art. Fourteen members present. President Covert in the chair. J. Claire Wood read a paper entitled the "Blue-jay in Autum," which illustrated many of the characters of this interesting bird. A. W. Blain, Jr., read a paper on "Five Days of Observation on the Birds of Elmwood" (a Detroit Cemetery) [April 27, 28, 29, 30, May 1] in which he gave the arrival dates of many species as well as many other notes of interest. Among others he recorded the capture of a male and female Palm Warbler—one of the rarest of local warblers. This was followed by notes by J. Claire Wood on birds noted during the same time in the western part of Wayne County. "Bird Observation" by Dr. Morris Gibbs was read by Mr. Blain in the absence of its author. Discussion followed by Messrs. Covert, Wood, Blain and Swales.

BRADSHAW H. SWALES.

Secretary.

June 5th.—The June meeting was held at the Museum of Art. President Covert in chair. About fifteen members present. In the absence of the Secretary the undersigned was appointed Secretary-protem. The following fraternal communication was read:

"The McIlwraith Ornithological Club of London, Ontario, sends greeting to the Michigan Ornithological Club with the hope that the re-organized club may be successful in every sense of the word, particularly in the way of stimulating its members to better work more carefully recorded than ever before.

(Signed)

W. E. SAUNDERS,
Secretary McI. O. C."

Papers entitled "Local Heronies" by J. Claire Wood and "*Bubo virginianus* in Michigan," by E. Arnold, were read by title.

A. W. Blain, Jr., gave notes on the Loon of Oakland County, and Chas. Wisner reported the finding of a set of Yellow-breasted Chat at Grosse Pointe. The following persons were elected to active membership:

Henry L. Avery, Pearl Beach, Mich.
Claude Barlow, Greenville.
O. A. Belknap, Ann Arbor.
Rev. J. A. Chapin, Detroit.
Guy E. Davis, Ypsilanti.
Frances J. Dunbar, Ann Arbor.
J. Wistar Harris, Chicago.
Rev. W. Leon Dawson, Columbus, Ohio.
Benjamin T. Gault, Glen Ellyn, Ill.
E. Gillman, Detroit.
Mrs. George Gundrum, Ionia.
Thomas L. Hankinson, Charleston, Ill.
T. F. McIlwraith, Hamilton, Ontario.
Isabelle H. Parnall, Calumet.
Max M. Peet, Ann Arbor.
Mrs. S. C. Rowson, Grand Rapids.
E. O. Scott, Ypsilanti.
Mrs. L. McG. Stephenson, Helena, Arkansas.
A. D. Tinker, Ann Arbor.
Bess. M. Voorman, Dowagiac.
Otto Widman, Old Orchard, Mo.
Wm. B. Wreford, Detroit.

A general discussion followed in which Messrs. Griffith, Cole, W. C. Wood, Eppinger and the Chair took part.

The next meeting of the M. O. C. will be held at the Detroit Museum of Art on August 7th.

A. W. Blain, Jr.,
Secretary pro tem.

As we go to press we hear from Mr. Norman A. Wood, as follows: Oscoda County, July 3rd. Started out at 6:45 this morning to look up *D. Kirtlandi* and had five fine males in my basket before 9 o'clock. No females found so I suppose they are setting very close—no nests found yet. Have found nest with two young of the Gt. Northern Shrike; young are full fledged, nest not very bulky, built in pine tree.

We shall expect a more extended sketch of this trip by Michigan's well known "warbler man" for our next issue.

Just after this issue had gone to press Mr. Wood returned home from his trip north in quest of the Kirtland's Warbler with very gratifying success, having obtained a fine series of skins, male, female, nestlings, full-fledged young, nest and eggs.

Mr. Wood also obtained some two dozen photographs of the birds (in life) and their nests. The material of this trip prepared by Mr. Wood and illustrated by the photographs, will be given to our readers in the third issue. The editor also hopes to be able to give a colored plate of the egg. There shall also be articles on the rare and interesting bird by Chas. C. Adams, A. B. Covert and Earl H. Frothingham.

A. W. B., Jr.

EXCHANGES.

Each member of the Club, not in arrears for dues, is entitled to two exchange notices, of thirty words each, during the year; other subscribers one such notice.

WANTED.—Sets of eggs containing abnormal specimens, such as runts, albinos, monstrosities, abnormally colored or shaped eggs. Will give cash or good exchange. J. WARREN JACOBS, Waynesburg, Pa.

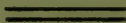
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September, 1903.



BULLETIN
OF THE
MICHIGAN
ORNITHOLOGICAL CLUB



Published Quarterly
In the Interests of Ornithology
in the Great Lake Region.



DETROIT, MICHIGAN.

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All subscriptions, articles and communications intended for publication and all publications and books for notice, should be addressed to the Editor, Alexander W. Blain, Jr., 131 Elmwood Ave., Detroit, Mich.

Articles of general interest relating to the bird life of the Great Lake Region are solicited. They should be in the hands of the editor not later than the 20th of the month preceding publication.



PHOTO BY F. C. HUBEL

IN THE HAUNTS OF THE RED-SHOULDERED HAWK.

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IN THE GREAT LAKE REGION.

VOL. IV.

SEPTEMBER, 1903.

No. 3.

SONG OF A NEST ROBBER.

J. CLAIRE WOOD.

Say! You city fellows,
I do not want to blow
But I'll tell you something
And something you should know.
Leave the dusty city
And get out into the woods
Away from the street organ
And man with the green goods.
When you lay around on Sunday
A' feeling mighty blue,
Without the slightest notion
Of what on earth to do,
Get inside your working clothes
And come along with me,
And you will find a pleasure
You never dreamed could be.
For everything in nature
Is now at the very best
And the hawks built in the hickory
And the eggs are in the nest.

Some people like the city
Because they're built that way,
But I prefer the country
On most any kind of day.
I'd sooner hear the wood thrush
Than the greatest opera star,
And would not swap the buckboard
For a Pullman palace car.
If I had a million dollars,
And I never expect to have
Enough to buy a bottle
Of old St. Jacob's salve,
To gain a social footing
I would not spend a dime;

To me there'd be no pleasure
As a fashion plate to shine.
But I'd take about a dollar
And skip to the place loved best
Where the hawks built in the hickory
And the eggs are in the nest.

When the season of grim winter
Is replaced by balmy spring
And you hear the frogs a' croaking
And the birds begin to sing,
A sort of joyous feeling
Goes a' creeping over you
And out comes the collecting box
And strap and climbers too.
Then good bye to the city
For about a month or so
And welcome to the forest
Where sweet pure breezes blow.
And when with expiring vacation
You bid nature's realm farewell
The most pleasant of the pictures
That in the memory dwell
Is the place of all the places
The most of all you bless
Where the hawk built in the hickory
And the eggs are where—well guess.



Eggs of the Red-tailed Hawk
Selected from a series in the collection of J. Warren Jacobs.

THE PASSENGER PIGEON IN THE EARLY DAYS OF MICHIGAN.

JAMES B. PURDY.

While rummaging in the attic lately I came across an old relic—a relic that brought back to me the fondest recollections of my early boyhood. It was an old stool that my father used for catching pigeons.

In those early days I kept no dates, but as near as I can remember it was somewhere in the early fifties when the wild pigeons (*Ectopistes migratorius*) made their regular spring and fall migrations through this part of Michigan in such vast numbers that they would nearly darken the sun.

As these great flocks passed one behind the other, far above the tree tops, they reminded me of fast fleeting clouds before a gale. Occasionally one of these high flying flocks would pitch down upon a field to feed and the great trains behind them would follow suit until the large field would be blue with pigeons. When they arose from the ground the roar of their wings would sound like distant thunder and they would light upon the old girdlings, which stood in the fields, in such great numbers that limbs of considerable size would be broken off under their weight.

It was during these migrations that my father would take this old stool, his pigeon net and a basket containing not less than three live pigeons and go out into the middle of a cleared field—stake out his net, build a bough house and prepare for business. The net was attached to the center of the net rope, the latter was probably three hundred feet long, each end of which was tied to a good firm stake which was driven in the ground. Around one of these stakes was built the bough-house, which was comprised of thick bushes about eight feet high, the ends of which were driven in the ground in a circle about eight feet in diameter.

The old stool was then driven in the ground just far enough from the net bed so that the net when sprung would just miss the stool pigeon. A small line was then attached to the stool, which run back to the net pole in the bough-house. The three pigeons were then blinded and boots placed upon their legs. The stool pigeon was then tied upon the stool and the other two pigeons called flyers were tied to the ends of long fish lines two hundred feet long, the other ends of which were tied to a bush at the entrance of the bough-house—these lines were carefully paid out so as not to get tangled when the flyers were thrown into the air. The flyers were then placed on the ground at the entrance of the bough-house and a stone placed on the line near the pigeon to keep him in place until wanted. I have said 'the pigeons were blinded'—some one may ask, how was this done? This was performed with a needle and thread. The point of the needle was placed between the eyeball and the lower eyelid. The needle was then passed outward through the lower eyelid. The thread was now brought up over the top of the head and through the lower eyelid of the other eye. Now, the two ends of the thread are brought up over the top of the head and tightened until the eyes are closed, after which they were gently twisted together. Some may say this was cruel, to which I may answer that blood scarcely ever made its appearance from the punctures through their thin eyelids and soreness scarcely ever occurred.

We now proceed to set the net and bait the net bed with wheat, and walking back to the entrance of the bough-house we are ready for business. We see a flock approaching and when within twenty-five or thirty rods we roll off the stones, throw the flyers and rush into the bough-house and play the stool pigeon, which is done by pulling on the stool line which raises the stool two or three feet high and by letting it down suddenly the stool

pigeon will flutter its wings. The flock has seen the flyers, which has drawn their attention and they now have their eyes on the stool pigeon and are sailing around and preparing to alight and suddenly they come pouring down on the net bed.

Were you ever excited in your life? Did you ever have the "buck fever?" With unsteady nerves you reach for the net rope. One moment more of awful suspense, a sudden jerk and the net dancing four thousand kinds of quicksteps, is sprung. You rush to the edge of the net and hold it down. One by one my father pinched their heads, which was the usual way of killing pigeons in a net.

The pigeons are now carried to the bough-house and the net would again be set, the flyers would be brought in and we would be ready for another haul. Hundreds of pigeons we have taken in this manner in a single day. But I think I hear some one ask, what did you do with so many pigeons? I may answer by saying that there was not much market for them during those heavy flights, so we skinned out their breasts and placed them in a weak brine for a few days, after which they were strung on strings—perhaps one hundred on each line. They were then hung up to dry and we used them in the same manner as dried beef. After being thus cured they would last indefinitely.

But here comes another inquiry—how did these pigeons see to eat? Did we unblind them? No, we held the mouths open between the thumb and finger and poured wheat down their capacious throats, which they eagerly swallowed when hungry. Wheat seemed to be the favorite food of the wild pigeon, but in its absence they would eat most any kind of grain and would feast abundantly on beech nuts and acorns, and when pressed by hunger would eat most any kind of weed seeds.

The Passenger Pigeon, like the whole family (*Columbidae*) of pigeons and doves, has the power of disgorging inferior food when a better quality of food is found, ample proof of which is found by watching an old pigeon or dove feed her young. The food is swallowed by the old bird and then disgorged into the mouths of their young. The obnoxious weed commonly called Red-rod, known better by the old settlers of Michigan by the name of pigeon weed, was supposed to have been carried hundreds of miles by the passenger pigeons and then disgorged upon the wheat fields, where it took root and grew, thus giving the name pigeon weed. Their object, of course, was to fill their crops with a better quality of food.

As to their breeding grounds* I cannot speak from personal observations, although many of them were found in those days in Michigan, but none of them, as far as I am able to learn, were found in this (Wayne) county. I was only a boy then, you know, but since that time I have lived to see the pigeon swept from the shores of this state and in fact the whole of the American continent.

And those sights which I have seen of the grand ariel flights of the

*See "An article by William Brewster on 'The Present Status of the Wild Pigeon as a Bird of the United States, with Some Notes on Its Habits,' (Auk, vi, 1889 pp. 285-291), gives much information concerning the recent history of the bird in Michigan, one of its last strongholds. According to an informant of Mr. Brewster's, the last nesting in Michigan of any importance was in 1881. 'It was of only moderate size—perhaps eight miles long.' The largest known Michigan nesting occurred in 1877 or 1878. It was twenty-eight miles long and averaged three or four miles in length." Chapman: Handbook of Birds of East. N. A. 6 Ed. (1902), p. 188.

Passenger Pigeon will probably never again be witnessed—they have gone, never to return. No more will they visit the shores of Michigan, for like Hamlet's ghost, they have departed forever, and the only thing I have left which reminds me of those days of yore is that old pigeon stool which lies in the attic.

Plymouth, Mich., August 5, 1903.

MERGANSER *AMERICANUS* NESTING AT SAGINAW BAY, MICHIGAN, 1902 AND 1903.

EDWARD ARNOLD.

The latter part of March, 1902, I was on Heisterman's Island looking for nests of the Bald Eagle (*Haliaeetus leucocephalus*). I found an old nest and thought perhaps the birds were on North Island, about a mile distant, so went to that island and found a large nest in a pine tree. The Eagles had left this nest and a pair of Great Horned Owls (*Bubo virginianus*) were in possession and had young at this date.

While standing close to a hollow tree a female American Merganser (*Merganser americanus*) flew around my head squaking, and I knew I was close to her nesting site. On the 13th of May, the same year, I revisited the island looking for her eggs. Went at once to the hollow tree where I thought the eggs were, climbed it and as I got close to the hole the female left, and I was more than pleased to look down upon the eight very beautiful eggs in a nest of down. Incubation had just begun. I put the eggs into a box, packed them carefully in cotton, descended the tree and spent one hour at the foot of the tree blowing the eggs. During this time the female flew over head a number of times squaking. I could have killed her easily, but did not as I had collected several and knew my bird well.

The eggs are very handsome, and are nearly as large as those of the White winged Scoter (*Oidemia delandii*), are highly polished creamy buff color and different from any other Duck eggs in color, shape and size. The eight eggs measure as follows: 2.70 x 1.90, 2.70 x 1.90, 2.69 x 1.89, 2.75 x 1.88, 2.64 x 1.93, 2.79 x 1.88, 2.79 x 1.59 and 2.78 x 1.88. The down of the nest is a beautiful light gray color.

On May 12th, of this year, I made a careful search of this island, but found no Mergansers nests. A Mallard (*Anas boschas*) was sitting on her nest and ten eggs in the grass and bushes near shore. I did not disturb her. I went over to Heisterman's Island, and after a hard day's tramp and climbing about twenty trees, I at last located another Merganser nest in a hole in a tree about ten feet above the ground. The female was sitting on the eggs and looked very nice surrounded by a large nest of down. She made a hissing noise and refused to leave her eggs. I could not reach her or the eggs and as the tree was alive I had to get my little axe to work. So I strapped myself to the tree just above the sitting bird. I soon had a small hole into the interior and saw the female through it. I tried to shoo her off her eggs, but she refused to move. I kept on chopping as I had to make the hole large enough to get the eggs out.

The chips kept flying inside and outside the tree, many of them struck the bird, but still she refused to fly. Finally I had the hole large enough and at last pushed Mrs. *M. americanus* off her eggs. She scrambled up and out of the entrance hole. I found eleven eggs and a beautiful nest of down. Incubation had begun. The eggs closely resembled my first set, and are now in a private collection on the Pacific Coast.

I found another nest and nine fresh eggs on May 19th at the other end of Heisterman's Island. Hole was about fifteen feet up. I climbed to entrance and could plainly see the female sitting on her eggs, reached down, caught her by the neck and pulled her off her nest. Put her under my left arm and started down the tree. When about half way down I slipped and fell the rest of the way—still hanging to the bird. I examined her at leisure. Had one hand on her bill and held her feet with the other. I then let her go, expecting of course that she would fly away, but she simply waddled off, and when she was at a distance of about seven yards tried to coax me by feigning lameness. I again climbed the tree and brought the eggs down safely to the ground. The eggs closely resemble my other sets, and are now in my cabinet.

Quite a few of these birds nest around Saginaw Bay. Nests are hard to find as the females will not flush. I have pounded hollow trees, containing nests, with an ax and rail, but the birds prove loyal to their homes. I have climbed at least twenty trees for every nest I have found, so that the finding of a nest requires laborous work and lots of climbing.

I saw a female early in June with six little ones, they were in shallow water close to an island. Could have caught the little ones, but did not want to kill the innocent. Saginaw Bay is shallow and the American Merganser frequents it and is not found on the islands of Lake Huron where the water is deep.

This bird has not been recorded as nesting in Michigan previous to my first finding the eggs in 1902.

Battle Creek, Mich., August 20, 1903.

WITH THE LOONS OF OAKLAND COUNTY, MICHIGAN.

FREDERICK C. HUBEL.

Amid hundreds of small lakes surrounded by hills, beautified by their green trees and shrubs, the Loon (*Urinator imber*) of Oakland County, Michigan, finds a home most congenial to his tastes.

Arriving from their winter home soon after the ice has melted before the warm days of early spring, their weird cry is a most familiar and happy greeting to the bird-student. Settling down in this region they remain ever contented until the ice parts them from their food.

As a diver the Loon is unsurpassed except by the auk and darter. While trying to shoot this bird I have known it to dive and come up several hundred yards from the spot of disappearance. These long distant swims often prove fatal to the bird as it is not uncommon for a fisherman to discover one of them drowned in his nets. Rising from the water they are slow and awkward, which, of course, is due to their heavy weight. I have watched them rise from lakes a half mile long and circle completely around before being able to clear the hills and tree tops. Once at a considerable height their flight is rapid and long sustained. The cry of the Loon, which is generally heard about sunrise and sunset, is probably best described by Nuttall in the words: "I have often heard on a fine calm morning the sad and wolfish call of the solitary Loon, which like a dismal echo seems slowly to invade the ear, and rising as it proceeds, dies away in the air."

The numerous marshes and bog land about these lakes afford splendid breeding grounds for this bird as well as for the many other water fowl of this locality. Deserted musk-rat houses, bare bogs and masses of decayed vegetation situated along the edge of the marsh form the rude but suitable platform upon which the eggs are deposited. From all records of this

locality two eggs are usually deposited, although one is very often the complement. The most noticeable characteristic of the Loon's eggs is the variation in size. Some are considerably longer and more pointed than others. I found a set of two a year ago last spring which appears to be the eggs of two different birds, one of the eggs being very much longer than the other.

In regard to the nesting sites Mr. Alexander W. Blain, Jr., writes me as follows: "One of the most interesting facts which I have noted in regard to the nesting of the Loon is the two distinct sites selected for their nests. The first and probably the most common, being those situated in the marsh and composed of a floating mass of decaying vegetation, much after the fashion of the Grebe nests—or placed on the top of some musk-rat house which has sunk almost to the waters edge at this time of the year. The second is those which are situated on the land some feet from the water. Of the latter type, so to speak, I found a most striking example this spring on one of the marl lakes in northern Oakland County. We observed one of the birds at a long distance, and from its actions felt sure that it must be nesting in one of the small lakes of this chain. A glance at the edge of the lake showed that there were no suitable nesting locations, so we rowed to a small island out in the middle. As we approached we saw the female coming around from the other side. A close search of this island proved that they were not nesting there, so we rowed to another small island a short distance off. Here we found the nest surrounded by wild rose bushes and shrubs about eight feet from the water on the bank and about two feet above high water mark. It was composed of rushes much after the fashion of the nests built in the water, but was not quite so elaborate. The two eggs were still warm, and later proved to be quite highly incubated. This set was found on May 22nd. The day before Mr. Bert Stowell found a nest situated in the water containing one egg. He left it, returning in about a week to find that the bird had laid no more. The birds of this latter set showed no sign of fear, and would come up quite close to us, while with my set the birds could no longer be seen after we had reached the nest. I credit the above cited land-building habit to the fact that very few weeds or rushes grow in the marl and suitable obstruction from view was not afforded. The birds had thus selected this location to meet the emergency—another case of circumstances effecting location in nest-building."

On May 17th, 1902, while going through the marshes on one of the lakes in the central part of Oakland County, a female Loon rose about thirty feet ahead of the boat and joined the male, which was swimming about in the middle of the lake. Being unable to locate the nest we left and returned later in the day, this time entering the marsh from the opposite direction from that which we had the first time. A few minutes later, the female appeared on the surface about two hundred yards from the marsh, having swum out under water. This time we had no trouble in locating the nest, which was merely an old musk-rat house that had sunken almost to the waters edge. It was situated on the edge of a small cove in two feet of water and contained two fresh eggs. From this it seems that the bird does not always dive and swim from the nest, but slides back into the marsh and rises when pursued from the lake.

On a large lake a few miles from where I took my set, a resident of one of the small towns in that part of the county flushed a Loon from its nest in the center of a rush island. He took the two eggs which the nest contained home with him, and through curiosity placed them under a setting

hen. The hen hatched the little Loons, but in a few days they died from lack of proper food, and were mounted by a local taxidermist.

Mr. Blain has two young about four days old in his collection, collected July 3rd, 1902, with the adult male, which shows that the eggs must have been deposited at a much later date than the previous mentioned sets, although I believe the nesting date of this species is fairly uniform, extending from about the middle of May to the middle of June.

There are records of sets from almost every lake of considerable size in this county. I know of lakes where the same pairs of birds nest year after year. Dr. P. E. Moody records six sets taken within the last few years from a small group of lakes in the central part of the county where he stays. After the breeding season it is not an uncommon thing to see four or five Loons together on one of these lakes, although they are usually seen in pairs.

As we know the Loon is a bird of little economic importance—feeding mainly on fish, roots of fresh water plants, frogs and aquatic insects—but who can imagine our beautiful lakes of Oakland County, amid all their beauty and splendor, without the king of the fresh water swimmers or in the words of Longfellow:

“The Loon that laughs and flies
Down to those reflected skies.”

Detroit, Mich., August 20, 1903.

NESTING OF THE PIPING PLOVER ON BIG CHARITY ISLAND, MICHIGAN, 1903.

EDWARD ARNOLD.

On May 20th I left Bayport, Mich., for Big Charity Island, in the hopes of adding something new to my collection. I expected also to find the American Merganser (*M. Americanus*) nesting there.

This island is about twenty miles from Bayport, on Lake Huron, just outside of Saginaw Bay—is government property and a lighthouse has stood on it for about fifty years. A pair of Bald Eagles has nested on it for a great many years.

Spotted Sandpipers (*Actitis macularia*) were very numerous and nested around the lighthouse in incredible numbers. I counted over twenty nests, (containing from one to four eggs) within half an acre. The soil is sandy and covered in places with weeds and long grass and on the ridges these birds were nesting. They flushed in numbers from their nests and kept up their piping notes during the time I stood near them.

A pair of Piping Plover (*Aegialitis meloda*) were flying around and running along the sandy beach just above the high water line. I thought the birds were the Belted Piping Plover (*A. m. circumcincta*—Ridgw.) and with my assistants at once started to look for the eggs—a short search soon revealed them. The nest was simply a hole scooped in the sand. The four eggs which made up the set were incubated about one week. With many stones and pebbles surrounding the nest the appearance was most beautiful. The parents kept close by.

I shot the female and was delighted to find that I had secured a nest and eggs of the Piping Plover, a bird not supposed to breed in this state. I could easily have secured both parents, but did not care to kill more than was absolutely necessary for identification. After I had shot the female another pair made their appearance, so that there was at least four of these birds on the island.

I saw a Loon (*Urinator imber*) swimming within three hundred yards of the shore and am satisfied from its actions it either had eggs on shore or was about to lay. I saw no American Mergansers on the island and the lighthouse keeper, Mr. McDonnell, who has kept the lighthouse for thirty years, assured me they did not nest on the island. The Red-breasted Merganser (*M. serrator*) nests on the island regularly. I saw a pair on the shore and they probably had eggs laid or were about to nest.

The island is heavily wooded, has a small lake on it and snakes are very plentiful. It has an abundance of hollow trees and two years ago a pair of Wood Duck (*Aix sponsa*) nested and brought out their young.

I slept one night in the lighthouse and the Spotted Sandpipers were very noisy all the night. The assistant keeper told me they were as noisy during all hours of the night as they were in the day and he thought more so some nights. I walked around the island several times, a distance of several miles, and estimated that at least two hundred pairs of Sandpipers were nesting. I climbed many of the hollow trees, but found no ducks nesting in any of them.

The eggs of the Piping Plover resemble very closely a set of Belting Piping Plover in my collection. The color is a little more creamy and the spots a little more pronounced; they are also a trifle larger.

The keeper of the lighthouse assured me that they had nested a great many years on the point where I found my set. Another trip to the island two weeks later failed to bring any new finds.

Battle Creek, Michigan.

BREEDING OF THE GRASSHOPPER SPARROW IN ST. CLAIR COUNTY.

In his "List of the Land Birds of Southeastern Michigan" (page 38) Mr. Swales records a set of eggs of the Grasshopper Sparrow (*Ammodramus saviannarum passerinus*) collected in Wayne County by Mr. J. Claire Wood. I wish to add another to the list of this bird which is gradually growing more abundant in this part of the state.

On the sixth of July, 1896, while passing through a recently mowed hay field, a few miles in back of St. Clair, Mich., one of these birds flushed from almost under my feet. The nest well concealed by a small tussock of grass, was placed in a slight depression in the ground and contained four slightly incubated eggs. They show no resemblance to the eggs of other sparrows in my cabinet, having a white ground-color, glossy and spotted with pale reddish-brown chiefly at the larger end.

Mr. Alex. W. Blain, Jr., tells me that while on a week's trip through Oakland County this spring, he heard the peculiar drawn-out song of the Grasshopper Sparrow at many places while passing through the country in a light wagon.

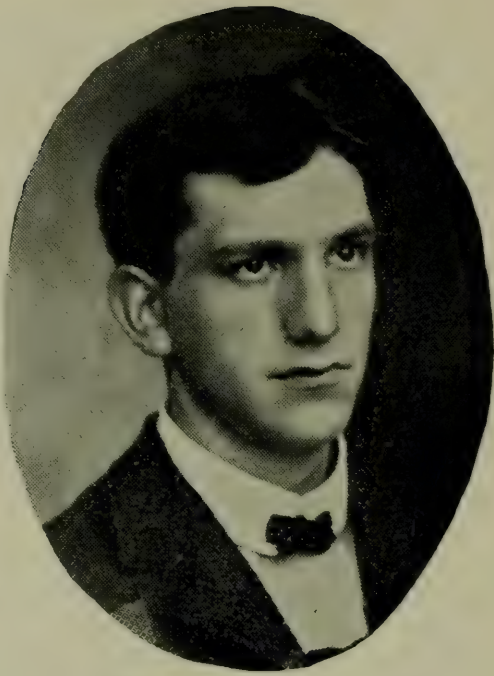
I should like to hear from members of the club in other parts of the state as regards the present and former abundance of this most interesting bird.

FREDERICK C. HUBEL.

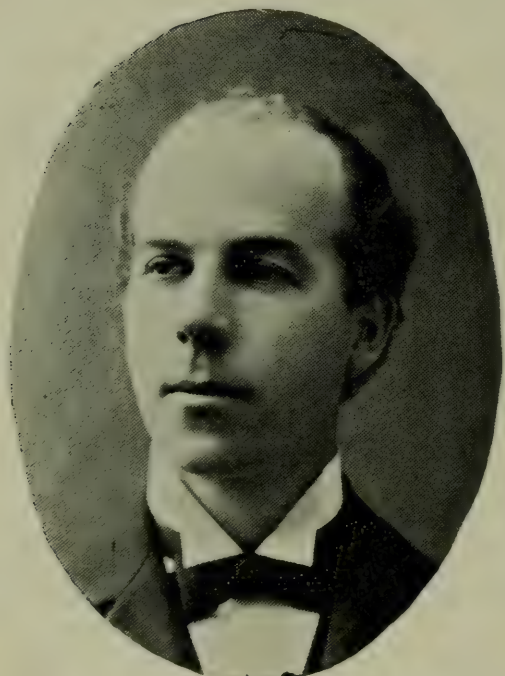
Detroit, Mich.



NEWELL A. EDDY,
Bay City



LOUIS J. EPPINGER,
Detroit.



EDWARD ARNOLD,
Battle Creek.



HUBERT LYMAN CLARK,
Olivet.

MICHIGAN ORNITHOLOGISTS.

SECOND SERIES.

Bulletin
OF THE
Michigan Ornithological Club

A QUARTERLY MAGAZINE DEVOTED TO THE ORNITHOLOGY
OF THE GREAT LAKE REGION.

ALEXANDER W. BLAIN, JR.

EDITOR,

131 Elmwood Avenue, - Detroit, Mich.

ASSOCIATES :

J. CLAIRE WOOD, - - - Detroit, Mich.

ADOLPHE B. COVERT, - - - Ann Arbor, Mich.

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EDITORIAL

The papers on the Kirtland's Warbler promised to appear in this number have been deferred to a later issue. Mr. Wood has since made a second trip to Oscoda county in company with Prof. Reighard.

The article on the Wild Pigeon, published in this issue, is one which will be read with wide-spread interest. In a letter accompanying the Mms. Mr. Purdy writes: "Some of this may sound strange to the younger ornithologists, but I have only told too true a story as I saw it in those by-gone days." Dr. Moody's record, published elsewhere in this issue, probably records one of the last specimens of this species which shall ever fly over the Wolverine state.

We regret to learn of the sudden death of Wilbur Clinton Knight of the University of Wyoming on July 28, 1903, at the age of forty-five. Dr. Knight was active in various branches of science, and will be remembered by ornithologists as the author of "The Birds of Wyoming."

On page 42 of the June issue we published a photo of two heron nests in an ash tree at the "Clarkston Herony"—but we failed to note that the picture also represented Mr. Bert Stowell, of Pontiac, ninety-two feet from *terra-firma*. The lower nest contained five eggs.

Probably few features in the ornithological journals for the current year have created more interest than the one now being executed in *Bird-Lore*, in publishing halftones of the members of its "Advisory Council." When completed, Mr. Chapman will be thanked by all bird-students for having introduced nearly fifty prominent American ornithologists—Wm. E. Saunders, of London, Ont., well known to Michigan bird-students, appears in the (5th series) July-August number.

We extend our sympathy to Mr. J. Merton Swain, editor of *The Journal of the Maine Ornithological Society*, whose home was recently visited by fire, destroying his books and other papers as well as his birds and other natural history specimens. "The collection represented a life-work, and many of the rare specimens will probably never be duplicated."

Our fellow member, Walter P. Manton, M. D., of Detroit, was a member of Nuttall Ornithological Club while at Harvard. In his early life he was a very enthusiastic bird-student, but a confining medical practice has prevented him from being active in bird work in later years. Dr. Manton is Clinical Professor of Gynaecology and Lecturer on Obstetrics in the Detroit College of Medicine, a Fellow of the Royal Microscopical Society, of the Zoological Society of London, of the American Microscopical Society and a member of the Michigan Academy of Science. Dr. Manton is a contributor to various medical journals.

Director A. H. Griffith, of the Detroit Museum of Art, and his assistant, Mr. C. H. Burroughs, left July 24th for a three months sojourn through Europe.

Dr. Morris Gibbs, of Kalamazoo, has written an article entitled "Moulting" in *American Ornithology* (Vol. iii, No. 8, p. 278) for August. Mr. Reed is to be congratulated upon the neat and, incidently, prompt appearance of his magazine. The illustrations used are alone worth many times the subscription price.

Dr. Gibbs is also among the contributors to the newly established *Atlantic Slope Naturalist*, edited and published by W. E. Rotzell, M. D., at Narberth, Pa. While the latter journal does not adhere solely to ornithological literature, it nevertheless publishes many notes of interest to bird students.

Editor of the Bulletin:

Dear sir:—I understand that there are a great many Black Terns being killed in various sections of the country, and I write to ask you to make a special effort to prevent the killing of any of them in Michigan, where it is contrary to the law to do so. Will you please take this matter up and see if you cannot afford protection to those breeding birds on the St. Clair Flats, where I understand they are very plentiful.

Very truly yours,

WM. DUTCHER,

Cha. Protection Comm. A. O. U.

New York City, July 14th, 1903.

Mr. Dutcher's efforts are merited. Club members should use their influence in protecting these beautiful birds. Better protection should be devised for the large colonies at the Flats.

Errata: *Cassinia* reviewed on page 54 in the last issue, is the sixth rather than the fourth number of the "Proceedings" of the D. V. O. C. Other vexing errors crept into the last two numbers—some of which are the fault of the editor, but most crept in after the proof had left the editor's hands. The full "errata" will be printed later.

RECENT LITERATURE.

THE MIGRATION OF BIRDS, WITH SPECIAL REFERENCE TO NOCTURNAL FLIGHT.
By H. A. Winkenwerder. Bull. Wis. Nat. Hist. Soc., Vol. 2 (N. S.), No. 4, pp. 177-262, frontispiece and pls. i-viii. Milwaukee, Oct., 1902.

The author divides his paper into four chapters, (I) A Historical Review, (II) The Causes of Migration, (III) Migratory Routes, and (IV) The Manner of Migration. The first two deal mainly with the writings of previous authors, while only in chapters III and IV does he introduce to any extent his own investigations. Chapter I covers some nine pages and gives a fairly complete review of the principal writings on the subject of bird migration, but also includes considerable discussion of the causes of migration, which are taken up more fully in the next chapter. After considering the various theories of Wallace, Weismann, Merriam, Newton, Brooks, and others, the author concludes that "Birds are set in migratory movement by a complex combination of changes in temperature, humidity and living nature. The cause for migration, however, is the failure of food in two widespread areas—the north and the south—at opposite seasons of the year." While recognizing the importance of the food supply as a "cause of migration," we cannot help feeling that the author's statement is too sweeping, and that he has not given sufficient weight to other factors, nor taken into consideration special cases. It is not probable that migration, even among birds, is a phenomenon of homogeneous origin, to be explained *in toto* by any one set of conditions, except, perhaps, in a most general way. Specific cases must have each its own explanation, and in these explanations the varying influence of heredity in the different species is a commonly neglected factor.

Mr. Winkenwerder's original work consists of observations of migrating birds at night by the use of a telescope turned upon the moon; this furnishes a lighted field against which birds crossing the line of vision are silhouetted. The same method has previously been used by Chapman and others, but has been extended and systematized by Mr. Winkenwerder, who, with the assistance of others, obtained nearly simultaneous observations at several points in the Great Lake region. As regards Migratory Routes the conclusions reached are not different from those generally held for the majority of our summer-resident land birds, viz.: that there are several great routes, or "trunk lines," so to speak, which the birds follow in coming northward, principally determined by the major physiographic features, and that from these the birds branch off gradually into routes of lesser and lesser importance, until they finally become distributed to their various breeding places.

It is perhaps with regard to the Manner of Migration that the telescopic method of observation offers us most of interest. Thus in regard to the altitude attained in migration we are told that "The telescopic observations show that there may be a zone of considerable depth, birds choosing variable altitudes in which to perform their migrations, but by far the greater number do not attain an altitude much over one-half mile from the earth's surface." Another conclusion bears out what has already been surmised from field observations: "Birds do not fly to some desired resting place in one night and

then pursue their flight to another the next night, nor do they necessarily fly throughout the entire night and then stop at the first convenient place in the morning. The simple truth here is that birds fly as far during one night as they find convenient, the distance being determined by immediate environmental influences."

While the paper gives us considerable data of interest, recording work apparently earnestly and conscientiously done, it seems that the deductions are hardly proportionate to the length, especially of the first two chapters. In form the paper also leaves much to be desired, especially in the matter of citations, while other evidences of lack of care, composition and proof-reading are not lacking. In the matter of citations it is a great convenience to one wishing to refer to the article quoted to have the reference full and clearly comprehensible, while uniformity in style throughout the same paper is greatly to be desired, and accuracy should not be sacrificed for any other consideration. A single example in which these points have not been considered will suffice: Mr. Brewster's paper on Bird Migration is cited in three places as having been published in the *Bulletin* of the Nuttall Ornithological Club, and in three other places as in the *Memoirs* of the same society; in two cases the date of publication is given as 1885, in two as 1886, and in the remaining two it is not mentioned at all. Two or three other slips may be mentioned: The second sentence on page 198 makes no sense as it stands; altering either one of two words will give it sense, but different meanings result according to which is changed. The figure on page 199 is inverted from its position in the instructions sent out by the author, and as it stands makes difficult an understanding of the instructions on the opposite page, as well as the interpretation of the plates which follow. Again, the diagram on Plate IV for "8:15 to 8:30" should read "8:00 to 8:15," as by turning to p. 234 it will be seen that no observations were made during the former period.

On the whole, Mr. Winkenwerder's contribution is a valuable accession to the steadily increasing data on migration, and indicates a line in which, by concerted effort, many side-lights, at least, may be thrown upon an interesting and puzzling problem.

L. J. C.

BIRDS IN THEIR RELATION TO MAN. A MANUAL OF ECONOMIC ORNITHOLOGY FOR THE UNITED STATES AND CANADA. By Clarence M. Weed and Ned Dearborn. Philadelphia and London. J. B. Lippicott Company, 1903. 12 mo. viii+380 pages. Numerous illustrations.

THE TOPOGRAPHIC SURVEY OF MICHIGAN. By Israel C. Russell (Pres. Mich. Academy of Sci. for 1902-'03). Printed for the Academy, Ann Arbor, Mich., 1903.

Nat. Comm. of Audubon Soc. Education Leaflets. By Wm. Dutcher. No. 4 The Robin, No. 5 The Flicker. New York City, 1903.

Am. Ornithology, III. Nos. 7, 8, 9, July, Sept., 1903.

Atlantic Slope Naturalist, I. No. 3, July-August, 1903.

Auk, XX. No. 3, July, 1903.

Bird-Lore, V. No. 4, July-August, 1903.

Condor, V. No. 4, July-August, 1903.

Journal Maine Orn. Soc. V. No. 3, August, 1903.

Recreation, XVIII. Nos. 6, 7, 8, July, Sept., 1903.

Science, (N. S.), XVII. Nos. 442-453, 1903.

Warbler, I. Nos. 1, 2, 3, 4, 1903.

Wilson Bulletin, (No. 43), X. No. 2, June, 1903.

In Preparation: "In the Haunts of the Golden-winged Warbler," by Warren Jacobs, Waynesburg, Pa.

NOTES FROM THE FIELD AND MUSEUM.

A RECENT RECORD OF THE WILD PIGEON.

A Wild or Passenger Pigeon (*Ectopistes migratorius*) was shot September 14th, 1898, at Chestnut Ridge—a few miles from Detroit, by Frank Clements, of this city. The bird—an immature specimen—was later mounted by Chas. Campion and is now in the collection of J. H. Fleming, of Toronto, Ont. This is probably the last authentic record of this species in Michigan.

Detroit, Mich.

PHILIP E. MOODY, M. D.

SOME RARE WASHTENAW COUNTY WARBLERS.

On May 10th, 1901, I took my first Prairie Warbler (*D. discolor*) a fine female. According to my notes this is a very rare warbler in this county. I shall long remember the 14th day of May, 1902, as the "warbler day." It was on this day I took my Kirtland's (*D. kirtlandi*), (see *Auk*, xix. p. 291 a female. I also took my first Orange crowned (*H. celata*) a beautiful female and a fine male Mourning Warbler (*G. philadelphia*).

The rare White-throated or Brewster's Warbler (*H. leucobronchialis*) was the trophy for May 18th, 1902. It is an adult male, rather larger than either *H. pinus* or *H. chrysoptera* and much different from either in coloration. (See *Auk*, xix. p. 401).

This coming season I hope to find some new ones, and extend "good (warbler) luck" to the rest of the club members

Ann Arbor, Mich.

NORMAN A. WOOD.

1903 RANDOMS.

The following Wayne County notes may be of interest:

Saw several Hermit Thrushes (*Turdus aonalaschkoe pallasii*) in a large woods in Dearborn Township. This is a day earlier than my previous records.

June 7—Noticed three pairs of Wilson Warblers (*Sylvania pusilla*) in Grosse Pointe Township. They were mated but not nesting. This is not a common warbler here at any season, and these are the first I have observed in June. Did not see a single Mourning (*Geothlypis philadelphia*) although on May 30 it was unusually abundant.

August 6—Ecorse Township. Three small flocks of White-throated Sparrows (*Zonotrichia albicollis*) noted—remarkably early. Also met with three Bairds' Sandpipers (*Tringa bairdii*). I mention this not because I consider the occurrence in any way unusual, but because there seems to be a prevailing opinion that the species is somewhat rare in the state. Another bird I have seen mentioned as rare is the Gray-cheeked Thrush (*Turdus alioce*) while as a matter of fact it is a common migrant here.

Detroit, Mich.

J. CLAIRE WOOD.

BREEDING OF THE SWAMP SPARROW AT THE ST. CLAIR FLATS.

It is always a pleasure to add to the avi-fauna of a region which is comparatively well known. It was with the hope of adding *Ammodramus henslowi* to the list of breeding birds of the American portion of the St. Clair Flats that Mr. Frederick C. Hubel and myself took a trip to the marshes situated in about the center of Big Muscamoot Bay on June 16th, 1903.

We observed no Henslow's, but early in the afternoon we flushed a small sparrow from her nest and four eggs in the tall thick grass. As it was about to rain darkness prevented us from getting a good sight of the bird, and the cries of a hundred, or more, Black Terns prevented us from hearing any notes which the bird might have uttered.

Notwithstanding our lack of proper identification, we returned home with the find. Upon showing them to Mr. J. Claire Wood he at once pronounced them the eggs of the Swamp Sparrow (*Melospiza georgiana*). I later sent the nest and three eggs (one egg broken while blowing) to Mr. Wm. E. Saunders, of London, Ont., who answered as follows: "Replying further to yours of June 23rd, I have studied the eggs you sent and have reached a surprising but well defined conclusion. They are Swamp Sparrows! The color agrees in every respect with some in my collection, so does size—yours run 81 x 56, 79 x 58, 82 x 61. One of mine in a set all alike is 80 x 57 (Sarnia, June 8, 1892.)

"Savannahs are about the same size, but they don't get the dirty-brownish blotches with washed edges that the Swamp have, and mine are all in uniform sets, while the Swamp often has an egg with the greenish ground of yours. Henslow's I haven't—except the birds. Davie gives the size of the Henslow eggs as 75 x 57, but Leconte's, which is the same sized bird, lays an egg 65 x 50 (by the same author.) The Grasshopper, which lays a large egg for its size, and is more nearly the size of the Savannah, is stated as 73 x 56. So it's likely the size of Henslow is an error and 65 x 50 is near it. Of course you know that sparrows eggs can't be identified with certainty, but I am nearly sure of these." The conclusion reached by Messrs. Saunders and Wood seems of sufficient evidence to me to admit the Swamp Sparrow as a breeding bird at the St. Clair Flats.

Detroit, Mich.

ALEXANDER W. BLAIN, JR.

AN ALBINO GRACKLE AT PLYMOUTH.

On the 18th of July, 1902, Harry E. Purdy shot an albino crow-black-bird or Grackle (*Quiscalus quiscula aeneus*) at this place. Its plumage was not pure white, but shaded very slightly into slate color. The feet, legs and mandibles were pure white. It was a young-of-year bird in its first plumage, and I think that if it had lived to receive its adult plumage it would have been pure white. This specimen was mounted and is now in my collection.

Plymouth, Mich.

JAMES B. PURDY.

CHIMNEY SWIFTS NESTING IN BARNs.

Much interest has been manifested of late by contributors of various bird magazines, chiefly *Bird-Lore* and the *Oölogist* regarding the nesting of *Chaetura pelagica* in barns and locations other than chimneys.

I have found them breeding quite common on the inner walls of barns in St. Clair County, Michigan. I know of four barns within a radius of a

half a mile, each of which contain one nest. The nests I have observed at this locality contained sets of four and six respectively.

Dr. P. E. Moody found a nest on May 23rd, 1903, in a small boat house situated on the edge of a lake in Oakland County.

Detroit, Mich.

FREDERICK C. HUBEL.

LARGE SETS OF RED-SHOULDERED HAWK.

One season, back in the eighties, I took two sets of six eggs of the Red-shoulder (*Buteo lineatus*) and nearly three years expired before I learned that the boys "loaded" the nests and then steered me to them. However, I have since succeeded in securing, in Wayne County, four genuine sets of five as follows:

April 13, 1892—Greenfield Township. Nest 40 feet above ground in swamp oak. Female shot and proved to be a young bird of the third year.

April 19, 1901.—Greenfield Township. Nest in main fork of black oak thirty feet above ground. Female seen at close range and was a bird of the third year.

April 19, 1903.—Van Buren Township. Nest twenty-five feet above ground in black oak sapling.

April 19, 1903.—Van Buren Township. Nest fifty-five feet above ground in beech.

The latter two were old birds that had each deposited four eggs every year since 1896, when I first located them.

Detroit, Mich.

J. CLAIRE WOOD.

THE STORY OF A HUMMER AND ITS SEQUEL

On May 27, 1903, our hustling editor, Mr. Bert Stowell, and myself were returning from a fifty mile hike after nests of the Loon. We were still about ten miles from home and had had the proverbial fisherman's luck, it rained every day and Bert ate all the grub while we were not looking. But just at this stage of the game a Ruby-throat (*Trochilus colubris*) dashed across the road and spun into a small piece of woods to our left. I observed him and suggested to our editor that that piece of woods looked like a likely place for the Cooper's Hawk. He agreed and followed me over the fence into the woods. Bert held the horse and scraped off the ragged edges of a piece of gunny sack to smoke a cigarette. We started into the woods and in about two minutes located the Hummer's nest.

It was situated in a small hickory and was saddled on a branch thirty feet from the ground and about five feet out on the limb. Upon examination it proved to be only partially built and contained no eggs. We grunted our disapproval and left after having obtained our bearings and a good look at the Hummer as it buzzed over our heads. I figured that it would take about a week to complete the nest and lay the two eggs. I made a pretty good guess, for June the third I drove those ten miles again and found the nest completed and one egg in it. The bird seemed to be not over joyed at my visit but settled back on the nest just before I left. Now comes the parting shot. Two days later I drove the ten miles again and found the bird gone, eggs or egg gone, and the nest partially destroyed. I drove home again over the ten miles and figured that I had driven fifty miles after that nest.

A few days later, June 9th, I made up my mind I would get a set of Hummer's eggs if I had to make them myself, so I started out in a drizzling

rain and made for a piece of woods about a quarter of a mile away. Well, I saw a lot of birds that interested me; found two nests of the Red-eye, one of the Yellow-throated Vireo and one of the Scarlet Tanager when a familiar hum caught my ear, and looking up I saw my Hummer's nest just over my head. In two minutes I had the eggs carefully wrapped up and in my col-



Nest and Eggs of the Ruby-Throated Humming Bird
Selected from a series in the collection of J. Warren Jacobs.

lection box and sat on the limb watching the bird as it hummed the most pleasing tune I then thought I had ever heard. The nest was in a small oak and like the other was saddled on a horizontal limb about thirty feet up and five feet out on the branch.

Moral:—Hunt in your own backyard and don't go all over the county for the nest of a common resident. By your own back yard I mean some good piece of woods you are thoroughly familiar with.

Detroit, Mich

PHILIP E. MOODY, M. D.

MINUTES OF THE CLUB MEETINGS.

August 7th.—Meeting held at the Detroit Museum of Art. Vice-President Moody in the chair. "The Passenger Pigeon in the Early Days of Michigan," by J. B. Purdy. "Two Winged Robbers," by W. C. Wood. "The Cardinal Grosbeak," by T. Jefferson Butler, were presented. Dr. P. E. Moody spoke of finding five broods of young of the Screech Owl within a radius of a mile in Oakland County, Mich. Adjourned.

September 4th.—Meeting held at the Detroit Museum of Art. "Nesting of the Piping Plover on Big Shanty Island, Michigan, 1903," and "*Megascops americanus* Nesting at Saginaw Bay, Michigan, 1902-'03," by E. Arnold, and "The Song of a Nest Robber," by J. C. Wood, were presented. L. J. Eppinger spoke of some birds he had received for mounting, and A. W. Blain, Jr., gave notes on some common birds. After a social time the meeting adjourned.

FREDERICK C. HUBEL, Sec'y. pro tem.

EXCHANGES.

Each member of the Club, not in arrears for dues, is entitled to two exchange notices, of thirty words each, during the year; other subscribers one such notice.

WANTED.—Sets of eggs containing abnormal specimens, such as runts, albinos, monstrosities, abnormally colored or shaped eggs. Will give cash or good exchange. J. WARREN JACOBS, Waynesburg, Pa.

WANTED.—Short-range photographs of wild birds, mammals and reptiles in nature, (excluding the commonest passerine birds of the eastern U. S., as Robins, Bluebirds, and Chickadees). Good prices paid for satisfactory pictures. Address ABBOTT H. THAYER, Monadnock, N. H., U. S. A.

TO EXCHANGE.—Birds' skins and sets for sets. J. CLAIRE WOOD, 179 17th Street, Detroit, Mich.

WANTED.—Every dealer and collector to send me his address that I may send out sample sheets of my *Standard Field Note* and *Data Blank Books*, endorsed by advanced collectors and dealers. Recommended by Ornithological Clubs. "All answered." GEO. W. MORSE, Box 230, Ashley, Ind.

LOUIS J. EPPINGER.—Taxidermist. 516 Chene Street, Detroit, Mich.

SOUTHERN EGGS FOR EXCHANGE.—Choice sets with full and accurate data. List for stamp. DR. M. T. CLECKLEY, Augusta, Georgia.

WANTED.—*Bulletin of the Mich. Orn. Club*, Vol. I., No. 3 and 4; Vol. II., Nos. 2, 3 and 4; Vol. III., Nos. 1 and 2. State condition and cash price. FRED'K C. HUBEL, 112 Alexanderine Ave., Detroit, Mich.

WANTED.—First class sets of eggs. Can offer in exchange some fine things, including rare Falcons, Warblers, Cranes, Etc., for desirable sets. E. ARNOLD, Battle Creek, Mich.

WANTED.—Copies of the *Nuttall Bulletin* and the *Auk* 1884-90. Also fine Warbler Skins. Will pay cash. B. H. SWALES, 191 Kirby Ave., Detroit, Mich.

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19,009

Vol. IV., No. 4.

December, 1903.



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OF THE
MICHIGAN
ORNITHOLOGICAL CLUB
(No. 14)

Published Quarterly
In the Interests of Ornithology
in the Great Lake Region.



DETROIT, MICHIGAN.

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Articles of general interest relating to the bird life of the Great Lake Region are solicited. They should be in the hands of the editor not later than the 20th of the month preceding publication.

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A Bi-Monthly Magazine Devoted to the Study and Protection of Birds

Published for the National Committee of the Audubon Societies, as the official organ of the Societies.

Edited by **FRANK M. CHAPMAN**

Audubon Department edited by **MABEL OSGOOD WRIGHT** and **WILLIAM DUTCHER**

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No. 4.

NESTING OF THE WHITE-BREASTED NUTHATCH.

EDWIN G. MUMMERY.

(With photo by the author.)

The White-breasted Nuthatch (*Sitta carolinensis*) is one of our most common and fairly well known birds. Its acquaintance is best made in the early springtime when it may be seen in more or less numbers in woods where preferably oak and elm trees of large growth are found. The natural cavities selected by the birds in such trees for nesting purposes usually extend straightly inward, often with a part turn, to a distance of fully ten inches. As this is one of our earliest nesting birds—preparations commencing in early April—the selecting of natural openings in sound live trees no doubt insures protection to both eggs and young from the severe weather usually experienced



NEST AND EGGS OF THE WHITE-BREASTED NUTHATCH.

at that time of year. The lining of the nest also insures warmth to its occupants, it being of the finest and softest grasses, strips of delicate bark lining, and feathers apparently of the bird itself, and makes in its entirety a most beautiful foundation for the eggs. I am of the opinion—after locating several nesting trees of this bird—that it does not nest in the decayed trunks of trees as has been stated.

The Nuthatch is undoubtedly a bird of great industry, and therefore—especially when in search of food—a tireless worker, exceedingly quick and

energetic in its movements and characteristically bright, bold and fearless when in or near its nesting place. That this bird is a valuable one and should by all means be protected there is no doubt. Investigation clearly determines the almost inconceivable number of insects and larvae destroyed daily by this active and attractive little bird. The eggs and nest lining shown in photograph were taken from an elm tree thirty inches in diameter at base; nesting opening being fifty-eight feet from ground. Lining of nest with eggs was placed on the ground and photographed.

To closely observe this bird during its nesting period one must expect to encounter what is usually considered very unpleasant conditions of the weather. The woods and meadows, therefore, often present a variety of appearances even in a single day. Wind, rain, and often snow storms are met in the space of a few hours, and the snow which in the morning lightly covered the ground has by nightfall entirely disappeared due to the falling of the soft spring rain or the increasing warmth of the sun which has occasionally shone through the broken and drifting clouds. These climatic changes though are merely considered as incidental to the object in view, and to an extent—at least while they last—are more or less enjoyed. The observations above mentioned were made in the spring of 1903 near Royal Oak, Oakland County, Michigan.

Detroit, Mich, Sept. 25th, 1903.

NESTING OF THE SANDHILL CRANE IN MICHIGAN.

EDWARD ARNOLD.

The Sandhill Crane (*Grus mexicana*) still nests sparingly in southern Michigan. I have heard of a pair nesting within twenty miles of Battle Creek within the past five years.

On May 8th, 1901, I started from Battle Creek for Jackson to try and locate a nest of this bird, a friend having told me that he had seen a pair of birds in a certain marsh. About five o'clock the same day in spite of the fact that it was raining, I hired a farmer boy and at once started in quest of the nest. The country was hilly and the marsh covered with a scattering of tamarack trees. The boy told me the cranes flew across the marsh morning and evening calling their peculiar notes. The marsh grass and rushes were thick, the mud and water deep, and to add to the difficulty of traveling fallen trees were scattered all over the marsh—some flat on the ground, some under the grass and water and the rest three or four feet above the grass.

After an hour and a half of hard work I flushed one of the birds from her nest and found the two eggs. The nest was located in the center of an acre of marsh surrounded by tamarack trees and was a massed lot of grass tamarack stems and willow brush about ten inches deep, the top about one half foot above the water. The bird flew when I was within one hundred feet of the nest—I had previously circled it several times and she must have been there all the time.

The eggs measure 3.80x2.49 and 3.85x2.52. The ground color is a light greenish ashy buff spotted and blotched with reddish, dark brown and various heliotrope shades.

On the 5th of May, 1902, I located this same pair of birds in the marsh within a half mile of the first nest I found the previous year, and the birds acted in a similar manner. The space where nest was built was surrounded by tamarack trees, and dead trees were lying in the long heavy marsh grass

all around the nest, making locomotion very difficult. The nest was similar in construction and situation to the one described above. The two eggs measure $3.73 \times 2.55 + 3.85 \times 2.60$. Incubation in both sets was advanced about one week with the exception of one egg of the '01 set, which was addled. Both sets are very handsome.

The cranes flew around the marsh after I took the eggs and I could hear their peculiar rolling guttural cries for several hours. I stayed near the nest until dark in both cases and had a good chance to observe the actions of one of the birds—which I believe was the female.

Early in May of this year I again visited the locality searched this marsh and adjoining one very thoroughly and did not see the birds. A farmer living close by told me both birds were around early in the spring, but had not been seen for several weeks and it is supposed that one or both birds fell victims to a farmer's gun.

I have a beautiful set taken in Summerfield township, Monroe County, on May 2nd, 1880, by Michigan's veteran ornithologist and collector, Mr. Jerome Trombley. The data reads as follows: "Nest was placed on the ground on a small island of willows in the midst of a small marsh of ten or twelve acres in extent. The marsh was surrounded with trees and bushes in a wild, retired place. The nest consisted of a mass of dried willow brush coarse stems of marsh grass slightly hollowed and lined with a little dry grass. eggs fresh, bird shot." Eggs measure $3.80 \times 2.35 + 3.75 \times 2.34$. They are as usual very handsome. The color is a rich brown spotted and blotched with dark brown, reddish brown and grayish violet making the general appearance of the eggs much darker than in my sets.

Bitterns and Swamp Sparrows were plentiful where I took the crane's eggs and in some future number of the BULLETIN I hope to write an article on the nesting habits of both of these birds.

My cabinet contains a series of six sets of this bird. The Florida eggs are the smallest and lightest in color of the series.

Battle Creek, Mich., Nov. 3rd, 1903.

PURPLE MARTIN NOTES FROM WAYNESBURG, PA.

J. WARREN JACOBS.

(With photo by the author.)

To accommodate the Martins (*Progne subis*) which has nested in the oldest of my bird-houses, I built and erected, last April, a handsome sixty-six room structure which brought the total up to one hundred and forty-five rooms for their use.

Notwithstanding this increase of nesting quarters, my colony did not show much, if any, increase in the number of nesting pairs. This is due, perhaps, to the fact that a week of cold, wet weather, during the latter part of June, 1902, was the cause of death of 150 young and several old birds.

A similar fate visited them again this year, but was more sweeping in its effect upon the young, only one brood surviving. At this time, however—June 15th—a very large number of the nests contained eggs which hatched out later.

From house No. 2 I took 40 young and one old dead bird. This old one covered five young, four of which were still alive, but cold and stiff. I tried to raise these by hand but failed, the last one living only about two days,

In house No. 3, 39 young and two old birds were found dead. A total of 86 birds.

About forty nests contained eggs on this date, most of which hatched shortly after the cold rains ceased and numerous young came out between July 18th and 25th.

Evidently all the unfortunate parents, who lost their broods, hatched out new ones as many of them were rebuilding their nests a few days after their misfortune, and on August 10th there were twelve broods of young in house No. 3 which had contained eleven or twelve nests full of dead birds in June, and in house No. 2 there was a corresponding number of young while no late broods came out of box No. 4, which contained only eggs at the time of the rains.



MARTIN HOUSE, No. 4.

I visited other bird-houses in and near town and found the same distressing conditions existed. In a number of cases the decomposing young were removed and the old birds rebuilt and hatched broods. One instance, however, differed from the rest: in this the whole colony moved from an old to a newly erected box a few hundred yards distant. The dead birds, however, had been left in the old box.

A singular fact is that after so many young birds died last year, none of the old birds rebuilt, but my personal observations this year show that nearly if not all the unfortunate parents brought out late broods. This may be accounted for by this year's misfortune occurring at hatching time, while in the previous instance the young were just beginning to leave their nests.

Waynesburg, Pa., Nov. 5, 1903.



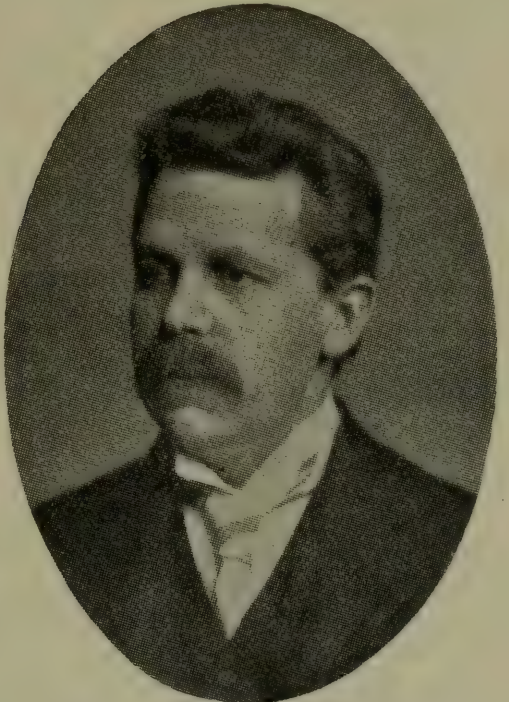
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Detroit.



LEON J. COLE,
Ann Arbor.



BRADSHAW H. SWALES,
Detroit.



WALTER B. BARROWS, F.A.O.U.
Agricultural College.

Bulletin

OF THE

Michigan Ornithological Club

A QUARTERLY MAGAZINE DEVOTED TO THE ORNITHOLOGY
OF THE GREAT LAKE REGION.

ALEXANDER W. BLAIN, JR.

EDITOR,

131 Elmwood Avenue, - Detroit, Mich.

ASSOCIATES:

J. CLAIRE WOOD, - - - Detroit, Mich.

ADOLPHE B. COVERT, - - - Ann Arbor, Mich.

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EDITORIAL

An index to the present volume of the *Bulletin* will be mailed with the March issue, also a list of the members of the club. Any change in address should be reported promptly.

We wish to again call the attention of members to the work of the committee on Geographical Distribution. Each member should search out his records and notes on the species selected (see page 29, March issue), and mail to chairman, Dr. Chas. C. Adams, Museum, University of Mich., Ann Arbor. Too much attention cannot be given to this work, and it is hoped that all students in the state will co-operate with the committee in extending this line of study.

We are pleased to present to our readers an article on the Martin colony of J. Warren Jacobs, whose recent *Gleanings* No. 2, "The Story of a Martin

Colony," created much interest. The following quotation from a recent letter will be of interest: "This year closes my twentieth in bird work and research along this line and I have all of my notes and field books from 1886 down to the present. Lack of time prevents me from bringing out new numbers of *Gleanings* oftener, but the time may come when I can have printed at least two numbers annually."

After the first of the year Charles E. Wisner will assume the office of business manager of the Club. All dues, subscriptions and communications of a business nature should be sent to Mr. Wisner at 1115 Brooklyn avenue, Detroit, Mich. It is hoped that all members will pay up their dues promptly as the *Bulletin* can not be sent to those in arrears.

The recent bird-bill introduced by Wm. Dutcher failed to become a law. We hope that the Michigan legislature will be aware of the economic value of our birds by 1905, so that the bill will then become a law. Mr. Dutcher has the thanks of the bird-men of the state for his untiring and commendable efforts.

Samuel N. Rhoads, of Philadelphia, has embarked as a dealer in "Old and new books, journals and proceedings relating to the natural sciences." Among the bird-books offered in General Catalogue No. 1, is an original set of Audubon's "Birds of America" (4 vols., plates), and the accompanying "Ornithological Biographies." (5 vols., text), for \$3000.00.

Our fellow member, the Hon. Peter White, of Marquette, has been mentioned as a possible candidate for Governor of Michigan at the coming election. Mr. White is well qualified to fill the position and the *Bulletin* hopes that he will see fit to become a candidate.

As we go to press we regret to learn that Frederick C. Hubel, one of the best known of the younger ornithologists of the state, is seriously ill at Harper Hospital, Detroit. The latest report from Dr. Philip E. Moody, says Mr. Hubel is slowly improving. We sincerely hope that he will soon be with us again.

The long-delayed revised edition of Coues' Key has at last appeared. This work will receive further notice in the March issue.

RECENT LITERATURE.

OUR FEATHERED GAME, A HANDBOOK OF THE NORTH AMERICAN GAME-BIRDS.
By Dwight W. Huntington. Charles Scribner's Sons. New York. 1903.
12 mo., xii., 396 pages, 8 full-page colored plates, 29 full-page half-tones.
Price, \$2.00; postage, 15 cents.

In a volume of forty-seven chapters Mr. Huntington has treated in a most excellent style all of the species of North American birds commonly hunted as game. The work, of course, as the name would imply, appeals strongly to sportsmen, but it is not of less interest to the ornithologist. Frequent anecdotes from the author's own experience add to the charm of the work and the eight full-page colored plates of shoot-

ing scenes will attract no less interest. The latter are similar to the author's well known illustrations in his "In Brush, Sedge and Stubble."

Following the "Introduction" and chapters on "Guns and Dogs," "Game Clubs, Parks and Preserves," the work is divided into three parts: (1) "Gallinaceous Birds" (bob-white, turkey, pheasant, grouse,



PARTRIDGE SHOOTING--SCATTERED BIRDS

(Half-tone reduction of colored frontispiece.)

ptarmigan, etc.); (2) "The Wild Fowl or Swimmers" (goose, ducks, swan, coot, etc.), and (3) "The Shore Birds or Waders" (woodcock, snipe, sandpiper, plover, cranes, rails, pigeon, etc.), and the various species of "game" are described in an orderly manner. Following this is an "Appendix" giving a brief description of the species discussed. We are pleased to note that the author recognizes the necessity for stringent game protection.

"Our Feathered Game" is the best all-round book on North American game birds that has as yet come under our notice.

A. W. B., JR.

CATALOGUE OF CANADIAN BIRDS, PART II. BIRDS OF PREY, WOODPECKERS, FLYCATCHERS, CROWS, JAYS AND BLACKBIRDS. By John Macoun, Naturalist to the Geological Survey of Canada. Ottawa, 1903. 8 vo. pages i-iv., 219-413. Price, 10 cents.

THE ECONOMIC VALUE OF BIRDS TO THE STATE. By Frank M. Chapman, Associate Curator of Mammalogy and Ornithology in American Museum of Natural History. (Published by the New York Forest, Fish and Game Commission.) J. B. Lyon Co., Printers, 1903., 4 vo., pp. 1-66, 12 colored plates.

Am. Ornithology III., Nos. 10, 11, 12, October, December, 1903.

Atlantic Slope Naturalist I., Nos. 4, 5, September-October, November, 1903.

Auk, The XX (n. s.) No. 4, October, 1903.

Bird-Lore, V., Nos. 5, 6, September-October, November-December, 1903.

Condor, V., Nos. 5, 6, September-October, November-December, 1903.

Journal Maine Orn. Soc., V., No. 4, October, 1903.

Oölogist, XX., No. 1, November, 1903.

Recreation, XIX., Nos. 4, 5, 6, October, November, December, 1903.

Science (n. s.) XVII., Nos. 454-466, 1903.

Warbler, I., Nos. 5, 6, September-October, November-December, 1903.

Wilson Bulletin (No. 44), X., No. 3, September, 1903.

Zoölogical Quarterly Bulletin, (Penna. Dept. Agric.), Vol. I., No. 1-8, May-December, 1903.

The *Oölogist*, which has not been issued for a number of months has again resumed publication. Beginning with 1904 Mr. Earnest H. Short, of Rochester, N. Y., will assume the editorship. Dr. Frank H. Lattin will continue as publisher.

Bird-Lore begins in the November-December issue a series of colored plates illustrating all of the North American warblers. "The text accompanying these beautiful pictures will be by Prof. W. W. Cooke, from data in the possession of the Biological Survey at Washington, and will give the time of arrival and departure of the warblers from hundreds of localities throughout their ranges."

C O R R E S P O N D E N C E.

To the Editor of the Bulletin:

It may interest some of your readers to know that, according to a note in a recent number of *Nature* (Vol. 68, p. 628), the director of the station of the German Ornithological Society at Rossitten, in Eastern Prussia, in order to obtain information as to their migrations, proposes to attach metal rings, each bearing a number and the date, to the legs of crows and rooks, which will then be set at liberty. These birds are taken alive in numbers at Rossitten during both migrations each year by means of nets. Notices have been sent all over Germany requesting that if any of these birds are shot that the feet, with the rings, be returned to Rossitten. In the March number of this *Bulletin* (Vol. IV., No. 1, pp. 19-22) I published some "Suggestions for a Method of Studying the Migrations of Birds," in which I advocated in the main another method of studying migration, but also suggested tagging the birds, apparently just as is now being done at Rossitten. It seems to me that if there is any way in which live birds can be obtained in sufficient numbers that it would be an excellent thing for individuals, or a committee, of the Michigan Ornithological Club to undertake similar work in this country.

LEON J. COLE.

Members of the Michigan Ornithological Club:

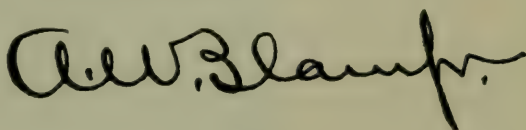
With the present issue of the *Bulletin* the re-organized Michigan Ornithological Club completes the first year of its existence. From the many letters of congratulation received from prominent ornithologists we feel that the Club has come to stay and likewise its official organ and moreover that the efforts of its members during the past year have not been spent in vain.

Michigan being a great state and its members scattered over a large area, it is impossible for all but a comparative few to attend the meeting and receive the benefits for which the Club was organized. The *Bulletin* is thus a necessity for the Club's existence and its function therefore to form a common means of communication and to publish original ornithological matter pertaining to the region about the Great Lakes. It is the hope of the editor that during the coming year the *Bulletin* will more successfully fulfill its mission and that members will contribute more freely.

The prospects for 1904 are brighter than ever before, and we hope that members will start in with renewed spirit to make the Club a greater success—thus further extending our knowledge of our friends, the birds.

Wishing you a happy and successful ornithological year, I am,

Yours fraternally,



NOTES FROM THE FIELD AND MUSEUM.

ANOTHER PARASITIC JAEGER FROM MICHIGAN.

A fine specimen of the Parasitic Jaeger (*Stercorarius parasiticus*), female, was shot at Point Mouille, Mich., on November 27th, 1903, and later received by Louis J. Eppinger, the Detroit taxidermist. This makes the second authentic record of this wandering species for the state. The first authentic specimen was taken at Otter Lake, Lapeer county on Sept. 28th, 1897, and recorded by Prof. Walter B. Barrows in this journal (Vol. I, No. 4, p. 47).

Mr. Eppinger has mounted the former specimen and will present it to the ornithological collection of the Detroit Museum of Art.

ALEXANDER W. BLAIN, JR.

Detroit, Mich.

NESTING OF THE CARDINAL CROSBKAK IN INGHAM COUNTY, MICHIGAN.

Each winter since 1899 one or more Cardinals (*C. cardinalis*) have wintered on the campus of the Agricultural College (in Lansing township, Ingham Co.), and have lingered until late spring. In the early summer of 1902 one was seen several times, and during the winter fol-

lowing three or more birds, one a female, were seen constantly. They were seen almost daily until the first of June, but although convinced that they were nesting, I searched in vain for the nest. On June 6, 1903, a party of students while surveying ran a line through a dense clump of Norway spruces on the campus, and a short time afterward instructor B. O. Longyear, following their track, found the nest of the Cardinal bottom up on the ground, with two eggs beside it, both somewhat incubated. The nest was restored to its original position on a near-by horizontal branch of spruce, about four feet from the ground, with the eggs, but the birds did not return to it, and after lingering in the vicinity for two days they disappeared and have not been seen since.

The nest and eggs (one egg broken) are now in the College museum. This is the first record of the actual nesting of this species in the county, so far as I know.

WALTER B. BARROWS.

Agricultural College, Mich.

A SLATE-COLORED JUNCO AT DETROIT DURING THE SUMMER.

When one of our summer residents is observed in the north in winter it at once excites interest within the breast of the bird-student, but on the contrary when a winter resident is seen in the summer it is not given much notice. The latter case is probably not rare, but the density of foliage at this period of the year obscures them from view and the student can always find much of interest without seeking deviations from the normal.

To observe a male Junco (*Junco hyemalis*) in Elmwood cemetery of this city on the 25th of June, 1903, was indeed a surprise to me, for I had observed the last migrants of this species on May 4th, and felt sure that all had left us by that time.

I spent some time in observing him and listening to his song. He flew into a flock of Chipping Sparrows, who not caring for his company drove him away. At last disappearing, it was not until July 15th that he again came under my notice. He was as before quite fearless. The following day I again observed him feeding. From then to the 21st of August he was missing. This time his song had ceased, but he was as tame as before, allowing us to get quite close to him. On the 20th of September I again observed him and a few days later flocks of his kind were abundantly scattered over the cemetery.

The cause of his summering here could probably have been explained upon dissection, but I preferred to continue my observations. He was probably wounded, so that migration at the proper season was impossible.

ALEXANDER W. BLAIN, JR.

Detroit, Mich.

ANOTHER NOTE ON THE CHIMNEY SWIFT.

Having found the Chimney Swift (*Chaetura pelagica*) nesting in locations not mentioned in Frederick C. Hubel's communication (page 82, Sept. No.) I step into the deal thinking that, perhaps, further observation might interest some of the readers. Like Mr. Hubel, I have found the species nesting in

barns and not more than one pair to a barn, but I once found three nests in three barns in one barnyard. This was near Saline, Washtenaw Co.

In what is now known as the Village of Highland Park, Wayne Co., a pair occupied the chimney of an old house each year until the structure blew down. They then took up their quarters in the hollow of an elm about fifty feet away. I did not disturb them. There was another abandoned dwelling in the same neighborhood where a pair glued their nest to the clapboards in the attic, although the chimney was in an excellent state of preservation and had not been used for years. Another nest was found at north Detroit, in the top of a large railroad water tank—the station master having purposely left the trap door open and had done so for some years or so he stated. Years ago three pairs occupied a hollow elm near the Woodward avenue street car barns, of this city. By standing a short distance from the tree one of the nests could be seen directly opposite the opening, but in order to see the remainder it was necessary to peer up through the trunk, there being a large hole at the base.

In this locality the Chimney Swift breeds abundantly in tree cavities and from personal observations I doubt if more than fifty per cent. nest in chimneys.

J. CLAIRE WOOD.

Detroit, Mich.

RECORDS OF THE SAW-WHET OWL.

Records of the Saw-whet Owl (*Nyctala acadia*) in Michigan are much rarer than they should be. Many are undoubtedly shot or observed that are not recorded. I have two late records. On November 1st, 1903, a small boy entered my store with a specimen of this beautiful little owl which he shot a short ways up the street with a slingshot. I lectured to him on the evils of shooting birds, but in spite of the fact he again came in on the 13th with another specimen of the same species.

Two Pine Grosebeaks (*Pinicola leucocolor*) were shot near Detroit on Nov. 9th. Many of the larger birds, such as ducks, hawks and owls were received for mounting this autumn, but I am pleased to state that I am now seldom called upon to put up terns or gulls as hat birds. If all Michigan birdmen would use their influence the "hat-bird business" would soon be stopped in the state.

LOUIS J. EPPINGER.

Detroit, Mich.

A SURF SCOTER ON THE DETROIT RIVER.

On November 10th, 1903, I found the remains of a female Surf Scoter (*Oidemia perspicillata*) on the shore of Sugar Island in Monguagon Township Wayne County, Mich. The bird was in good condition, and could not have been dead many hours. This species is very rare in the state and but few specimens have been recorded.

J. CLAIRE WOOD.

Detroit, Mich.

A FLOCK OF CARDINALS NEAR ANN ARBOR AND OTHER NOTES

A flock of about thirty Cardinals (*Cardinalis cardinalis*) were observed near the Huron River, about one mile south of here on October 10th, 1903, by Mr. R. A. Brown. On November 7th, Mr. Wilbur H. Grant shot three Pine Grosbeaks (*Pinicola enucleator*) from a flock of seven or eight. The latter

were taken three miles east of here. These birds are only a rare straggler and I have not observed any for a number of years.

In looking for notes of interest in my note book I find I shot my second Prairie Warbler (*D. discolor*) on April 9th. As noted in the last issue this species is very rare in this vicinity.

I should be pleased to receive from members of the Club their spring and autumn notes on the warblers in Michigan for 1903.

NORMAN A. WOOD,

Ann Arbor, Mich.

SOME IRREGULARITIES IN MOLTS.

A somewhat aged but none the less brilliant plumaged Goldfinch (*S. tristis*), was captured in July, 1898. The bird retained its nuptial plumage until January, when a part of the feathers dropped out and were not replaced. Remained in this partial nude state until late April and then blossomed out in full winter plumage. Summer plumage began to appear about September 1st and was complete by the 15th. Commenced to change into winter plumage about October 15th, and had not acquired the full dress when found dead in the cage on the 28th.

Last July I noticed a Barn Swallow (*C. erythrogaster*), fluttering along the ground and easily effected its capture. All the primary feathers, in the right wing, had dropped out and the new growth was less than an inch long rendering flight impossible. No sign of molt was visible on the left wing or other portions of the plumage. The bird was in excellent condition of flesh.

J. CLAIRE WOOD,

Detroit, Mich.

STRAY NOTES.

On May 27th, 1903, I flushed a large sparrow from her nest in an open meadow, near Waterford, Oakland County, Mich. She at once played "the bird with the broken wing act," and incidentally displayed her plumage to its best advantage. She was a Lark Sparrow (*Chondestes gammacus*) and the first I had ever found nesting. The nest was easily located as it lay almost at my feet and contained four young sparrows, perhaps three or four days old. During the month of May and June of this year I found this species abundantly scattered throughout Oakland County. Mr. C. A. Newcomb, Jr., found a set of four heavily incubated eggs on the 16th of June, 1901, in the same locality that I found my nest.

We have records of the Yellow-breasted Chat (*Icteria virens*) breeding in the west suburbs of Detroit and in the east suburbs, but I wish to record the finding of a pair nesting in the north suburbs by Dr. T. H. Potter, June 23rd, 1900. There were three eggs heavily incubated.

Mr. F. C. Hubel in the last issue (page 75), recorded the finding of a set of Grasshopper Sparrows (*Ammodramas savannarum passerinus*) in St. Clair County and has requested information on the subject of their distribution. I have as yet to find this bird breeding, but have found them fairly abundant in Oakland County during the breeding season.

PHILIP E. MOODY, M.D.

Detroit, Mich.

A LARGE SET OF GREBE EGGS.

For many years I have made annual visits to the St. Clair Flats in order to extend my knowledge of our water birds.

The Pied-billed Grebe (*Podilymbus podiceps*) is not only a common residence, but also an early breeder and a bird of very interesting nesting habits, especially the trait of covering its eggs, which never fails to elicit praise from the student.

On May 31st, 1903, while rowing across one of the larger bays, I saw an American Bittern fly into some rushes on a small reedy island. Swiftly but with as little noise as possible I made for this spot. My appearance was so sudden that the Bittern did not see me until I stood up; he then took to flight. Directly in front of the boat and not over six feet away was a Grebe's nest full of eggs and they were uncovered. The radius of this island was not over fifty feet. A three-minute search convinced me that the Bittern was not nesting, so I turned my attention to the Grebe nest and found it completely covered with decaying and marsh grass. Although at no time more than fifty feet from this nest and always in view, the old bird had returned, covered her eggs and retreated. She had made not the slightest sound nor was there a ripple in the water to indicate her presence. Another surprise awaited me for the nest contained ten eggs, one being one-fourth smaller than the remainder.

WALTER C. WOOD.

• *Detroit, Mich.*



MUSEUM

University of Michigan, Ann Arbor, Mich.

MINUTES OF CLUB MEETINGS.

October 2nd.—Meeting held at the Detroit Museum of Art. Alex. W. Blain, Jr., read a paper entitled "Do Wild Birds Die Instantly?" The subject provoked a lengthy discussion, in which Messrs. J. C. Wood, Wisner, W. C.

Wood, Swales and the author took part. "Nesting of the White-breasted Nuthatch," by Edwin G. Mummery, was presented. B. H. Swales spoke on "Autumn Warblers." The rest of the meeting was given to discussion of various bird topics.

December 5th.—Detroit Museum of Art, President Covert in the chair. Members present: Messrs. Moody, J. C. Wood, Eppinger, Griffith, Blain, W. C. Wood, Butler, Wisner, Swales, of Detroit; Covert and N. A. Wood, of Ann Arbor; Arnold, of Battle Creek, and Brotherton, of Rochester. The meeting, which continued until past midnight, was one of the most successful of the year. The following programme was presented: "Discovery of the Breeding Area of Kirtland's Warbler in Michigan," N. A. Wood; "Observations on the Habits of Birds of the Family *Mniotiltidae* in Monroe County, Mich., by Jerome Trombley during the years 1875-1881," A. W. Blain, Jr.; "Some Late Breeders," J. Claire Wood; "Nesting of the Sandhill Crane in Michigan," Edward Arnold; "Birds in Their Relation to Art," Prof. A. H. Griffith. Discussion followed after each paper, which made the meeting very interesting.

Dr. J. A. Allen, of the Am. Museum of Natural History; Wm. Brewster, of Cambridge, and Robt. Ridgway, of the Smithsonian Inst., were elected honorary members. Prof. H. L. Clark, of Olivet, Mich.; A. Bertling, London, England; Geo. W. Morse, Ashley, Ind.; Miss Clara E. Dyar, Grosse Pointe Farms, Mich.; Fred M. Dille, Longmount, Colo.; Hon. Chase S. Osborn, of Sault Ste. Marie, Mich.; Mrs. W. B. Williams, Lapeer, Mich.; Mrs. R. A. Newman, Detroit; P. B. Peabody, of Sandance, Wyom.; and John Lewis Childs, of Floral Park, N. Y., were elected active members.

Amendments were made to the Constitution, namely the creation of a class of patrons and change in the number of meetings per year. "Patrons shall be members of the club and shall pay five dollars (\$5.00) or more per year to treasurer." It is hoped that many will join this class so that the *Bulletin* may be improved accordingly. "The club shall meet on the first Friday of February, May, August and November at Detroit." The annual meeting will be held as before. The office of Sec.-Treas. was made into separate offices and the "treasurer shall be business manager of the club publications." Chas. E. Wisner was elected to this position, and will begin duties the first of the year. The meeting adjourned to February 5th, 1904.

BRADSHAW H. SWALES, Secretary.

CONSTITUTION OF THE MICHIGAN ORNITHOLOGICAL CLUB.

ARTICLE I.—Name.

This society shall be known as the Michigan Ornithological Club.

ARTICLE II.—Object.

The object of this society shall be the promotion of the science of ornithology in the Great Lake region.

ARTICLE III.—Membership.

(i) The Club shall be composed of active members, honorary members and patrons.

(2) Active members shall be persons interested in ornithology or any branch thereof, and shall pay one dollar (\$1.00) per year to the treasurer.

(3) Honorary members shall be persons distinguished for their attainments in ornithology, and shall not exceed five in number.

(4) Patrons shall be members of the Club and shall pay five dollars (\$5.00), or more, per annum to the treasurer.

(5) Members and patrons may be elected at any regular or annual meeting.

(6) Applications for membership shall be accompanied by the membership fee.

(7) Members and patrons shall receive the Club journal free of charge. Members four months in arrears for dues shall be dropped from the roll.

ARTICLE IV.—Officers.

(1) The officers of the Club shall consist of a president, three vice-presidents, a secretary and a treasurer, who shall perform the customary duties of such officers. There shall also be an editor and two associates.

(2) The editor shall edit the club publications with the assistance of the associates. The treasurer shall be business manager of the club publications.

(3) All officers shall be elected at the annual meeting.

ARTICLE V.—Meetings.

(1) The Club shall meet on the first Friday of February, May, August and November at Detroit.

(2) There shall also be annual meeting held at the same time and place as the annual meeting of the Michigan Academy of Science.

(3) The president may call a special meeting at any time or upon written request from three members.

(4) Seven members shall constitute a quorum.

ARTICLE VI.—Publications.

The Club shall publish a quarterly bulletin at Detroit on the 15th of March, June, September and December and such other ornithological work as the members see fit.

ARTICLE VII.—Committees.

(1) There shall be two permanent committees, the Bird-Protection and the Geographical Distribution, of four members each, which shall be elected at the annual meeting.

(2) Special committees may be elected or appointed at any Club meeting.

ARTICLE VIII.—Parliamentary Authority.

Roberts' Rules of Order shall be the parliamentary authority to be used in the proceedings of this organization.

ARTICLE IX.—Amendments.

This constitution may be amended at any annual or regular meeting by a two-thirds (2-3) vote of all the members present.

EXCHANGES.

Each member of the Club, not in arrears for dues, is entitled to two exchange notices, of thirty words each, during the year; other subscribers one such notice.

WANTED.—Copies of the *Nuttall Bulletin* 1876-78, and *The Auk* 1884-90. Also fine warbler skins. BRADSHAW H. SWALES, 191 Kirby Ave. East, Detroit, Mich.

WANTED.—To buy collections of specimens or books, any size, for prompt cash. Will take singles in any quantity, in exchange for specimens or books. WALTER F. WEBB, 416 Grand Ave., Rochester, N. Y.

WANTED.—*Bulletin of the Michigan Ornithological Club*, Vols. I., II. and III.; any number. State condition and cash price. All answered. A. W. BLAIN JR., 131 Elmwood Ave., Detroit, Mich.

TO EXCHANGE.—A series of Common Tern and other common water birds for sets not common to this locality. CHAS. E. WISNER, 1115 Brooklyn Ave., Detroit, Mich.

WANTED.—First-class sets of eggs. Can offer in exchange some fine things, including rare warblers, cranes, falcons, etc., for desirable sets. EDWARD ARNOLD, Battle Creek, Mich.

TO EXCHANGE.—Bird skins and sets for sets. J. CLAIRE WOOD, 179 17th Street, Detroit, Mich.

COLLECTORS.—I have issued a 16-page booklet containing a digest of the Michigan game laws for 1903-04 and other useful information for collectors and sportsmen, which I will mail upon request. LOUIS J. EPPINGER, 516 Chene Street, Detroit, Mich.

WANTED.—Sets of eggs containing abnormal specimens, such as runts albinos, monstrosities, abnormally colored or shaped eggs. Will give cash or good exchange. J. WARREN JACOBS, Waynesburg, Pa.

WANTED.—Every dealer and collector to send me his address that I may send out sample sheets of my *Standard Field Note* and *Data Blank Books*, endorsed by advanced collectors and dealers. Recommended by Ornithological Clubs. "All answered." GEO. W. MORSE, Box 230, Ashley, Ind.

TO EXCHANGE.—A few good sets of Mountain Plover for sets new to my collection. FRED M. DILLE, Longmont, Colorado, R. F. D.

FOR SALE OR EXCHANGE.—Skins and mounted birds, sets and singles. Wanted, bird skins and sets with data, send lists. All letters answered. Jessie T. Craven, 572 Hubbard Ave., Detroit, Mich.

WANTED.—Bird eggs, sets only. Will take same in payment for books, subscriptions, tools, supplies, etc. Send lists, state wants. Can supply any want for field or study. Benjamin Hoag, Stephentown, New York.
